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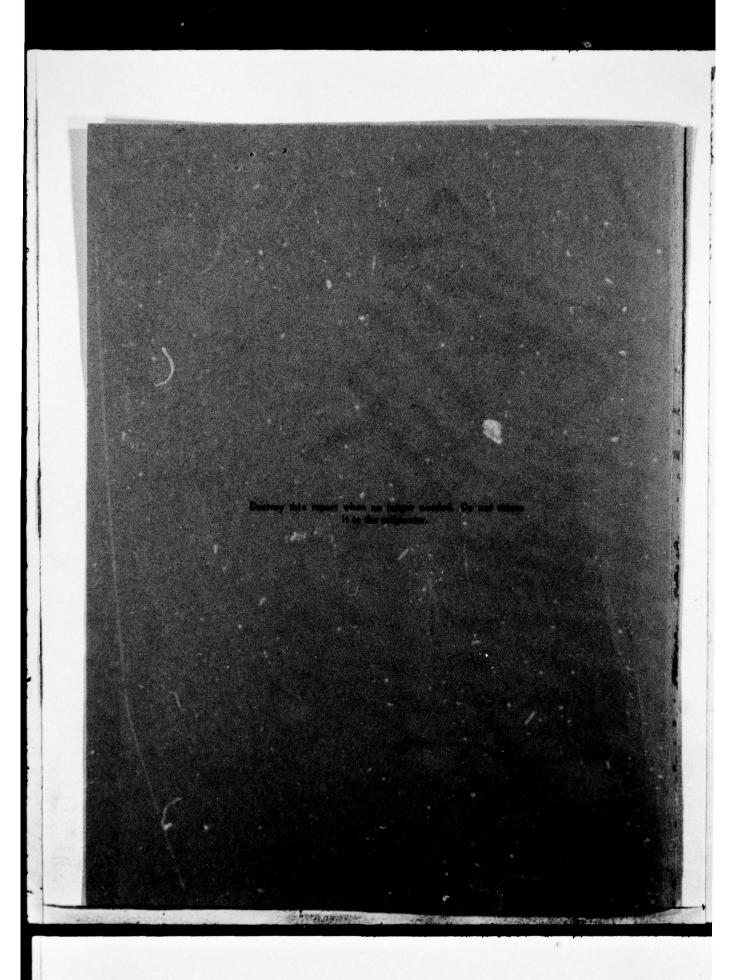
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GRAPHICS IN THE CORPS.



Proceedings of the Computer Graphics Colloquiums 1-3 August 1978, United States Army Engineer

Vaterways Experiment Stations

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Vicksburgs Mississippi.

Volume II. Abstracts of Computer/ Graphics Programs,



12 768 P.

PROCEEDINGS OF THE COMPUTER GRAPHICS COLLOQUIUM

1-3 AUG 1978

VOL II—ABSTRACTS OF COMPUTER GRAPHICS PROGRAMS

Sompiled and Edited by:
James M./Jones, Robert L./Hallgand N./Radhakrishnan

U. S. ARMY ENGINEER
WATERWAYS EXPERIMENT STATION
Vicksburg, Mississippi 39180

038 100

PREFACE

Computers are being increasingly used by engineers in solving design and analysis problems. A primary factor contributing to that use is the development of computer graphics techniques. Computer graphics has made the computer a workable tool for the engineer as it gives him more information than pages full of numbers.

Since 1973, the U. S. Army Engineer Waterways Experiment Station (WES) Automatic Data Processing (ADP) Center has been very active in research in computer graphics and promoting interactive graphics applications to field office engineers. The WES ADP Center conducted the first graphics colloquium in February 1975. These efforts were made possible through funds provided by the Computation and Analysis Section, Civil Works Directorate, Office, Chief of Engineers (OCE), to support projects on "Interactive Graphics Programs for Engineering Design" and "Maintenance and Improvement of the Graphics Compatibility System (GCS)." Also, OCE provided R&D support for several graphics projects through the Scientific and Engineering Division, Engineer Information Data Systems Office (EIDSO), under project ATL1 (ISRAD).

Since 1975, through the combined efforts of the WES and the OCE, there has been a tremendous growth in computer graphics applications in the U.S. Army Corps of Engineers Division and field offices. This growth was recognized at the October 1977 INFOCORP meeting in which a special Graphics Users Committee (GUC) was established to address the needs for graphics and dissemination of graphics information. Based on the recommendation of the GUC, OCE supported WES in hosting the Second Graphics Colloquium.

The colloquium was held at WES, 1-3 Aug 78. The objective was to bring together people from throughout the Corps who were involved in developing and supporting graphics activities in their offices. Over 100 participants representing 11 Division offices, 22 District offices, and 3 Corps laboratories attended the colloquium. Speakers from the field offices addressed the graphics applications that are currently being pursued by their offices. Speakers from the R&D laboratories —

addressed graphics applications developed for field offices' use and other future developments. The interactive and passive workshops informed participants on using existing graphics programs and provided a forum to discuss the future needs of computer graphics.

The Colloquium Proceedings are published in two volumes. All papers and abstracts of the presentations and workshops are included in Volume I. Volume II contains the abstracts of computer graphics programs being used by the Corps' offices.

Several people contributed toward making this colloquium a success. The editors would like to thank all the speakers, authors, and session chairmen for their interest and participation. The following members of the INFOCORP Graphics Users Committee worked enthusiastically to ensure the success of the Conference:

Jim Dahlen, Seattle District
Robert Hall, WES
Bob McMurrer, DAEN-DSE (OCE)
Al Montalvo, Ft. Worth District
Jim Jones, WES
John Lambrecht, Nashville District
Jim Waller, Wilmington District
Don Phillips, Jacksonville District
Ed Stone, Huntington District
Harry Hardin, OCE

These two volumes of the Proceedings were compiled and edited by Messrs. James Jones II, Robert Hall, and Dr. N. Radhakrishnan, ADP Center, WES, under the general supervision of Mr. D. L. Neumann, Chief, ADP Center. Commander and Director of WES during the Colloquium and the preparation of this report was COL John L. Cannon, CE. Mr. Fred R. Brown was Technical Director.



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ABSTRACTS OF COMPUTER GRAPHICS PROGRAMS

Introduction

This volume contains a list of computer graphics programs available in the Corps of Engineers. The list was compiled based on responses to a questionnaire mailed by the Automatic Data Processing Center (ADPC), U. S. Army Engineer Waterways Experiment Station (WES), to all the Corps field offices and on input from several participants attending the Computer Graphics Colloquium held at the WES, 1-3 Aug 78.

Each program listed herein features information on the originating office, a short abstract of the program, the graphics language, and whether the program is interactive or passive. The programs are grouped according to their source. That is, a Division's programs are listed first followed by all the programs of the Districts within that Division.

An on-line index of programs contained in this volume is available in the Boeing Computer network. The index can be sorted and listed according to the originating office, the application area, the graphics language used, or the mode of the program (interactive or passive). To run the program call the Boeing Computer (EKS) and do the following:

Get, GPROG/UN=CEROC1

GPROG

Listings from the program based on the application area, the graphics language used, and the mode of the program are presented in Appendixes A, B, and C, respectively.

The on-line index can be updated using a program called GUPDATE.

To use this program call the Boeing Computer (EKS) and do the following:

Get, GUPDATE/UN=CEROC1

GUPDATE

The editors feel that the list herein is fairly comprehensive and is in a form that can be revised, enlarged, and updated as necessary.

CONSTRUCTION ENGINEERING RESEARCH LABORATORY PROGRAMS

- A. Name, Organization, Telephone.

 Janet Spoonamore

 Construction Engineering Research Laboratory

 Comm 217-352-6511, FTS 958-731J
- B. Name of program. SEARCH
- C. Computer used to execute program. Amdahl 470 (mich Term. System)
- D. Program number.
- E. Programming language used.
 - (1) Applications. PL1/FORTRAN
 - (2) Graphics. IG
- F. Graphics equipment needed to support applications.
 Storage tube + ALPHA hard copy (MPX) digitizer
- G. Relationship to other programs (i.e., generates data for HEC2). A module of CAEADS
- H. Stage of documentation. Users' manual System documentation in progress
- I. Brief description of program capabilities.

 SEARCH provides digitizing of architectural drawings, displays them on the screen, and evaluates designs against established criteria.

COASTAL ENGINEERING RESEARCH CENTER PROGRAMS

- A. Name, Organization, Telephone.
 Preston C. Pierce
 Coastal Engineering Research Center
 325-7410
- B. Name of program.
 THRED
- C. Computer used to execute program. CDC 6600
- D. Program number. 803X6R1AQ0
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics.
 - 1. Modified version of CalComp
 - 2. Modified version of CalComp preview routines for Tektronix 4006 and 4010 series Plot 10
- F. Graphics equipment needed to support applications.
 - 1. Benson Lehner 305 or CalComp equivalent
 - 2. Tektronix 4006 and 4010 series
- G. Relationship to other programs (i.e., generates data for HEC2). None
- H. Stage of documentation. Complete
- I. Brief description of program capabilities. Generalized 3D package

- A. Name, Organization, Telephone.

 Preston C. Pierce

 Coastal Engineering Research Center
 325-7410
- B. Name of program.
 OUTPUT
- C. Computer used to execute program.
 CDC 6600
- D. Program number. 722X6R19KC
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. Modified version of CalComp
- F. Graphics equipment needed to support applications.

 Benson Lehner 305 or CalComp equivalent
- G. Relationship to other programs (i.e., generates data for HEC2).
 Input tape is generated from program TWODS (722XGR19KA)
- H. Stage of documentation. Preliminary
- I. Brief description of program capabilities.

Prints tables of:

- 1. Water levels and currents at specific time intervals
- 2. Maximum water levels
- 3. Observed and computed water levels Generates hydrograph plots for up to 20 grid blocks

- A. Name, Organization, Telephone.
 Preston C. Pierce
 Coastal Engineering Research Center
 325-7410
- B. Name of program. INLET 2 - A lumped parameter numerical model to predict inlet velocities, discharge, and bay level
- C. Computer used to execute program.
- D. Program number. 752X6RlANO
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. Modified version of CalComp
- F. Graphics equipment needed to support applications.
 Benson Lehner 305 or CalComp equivalent
- G. Relationship to other programs (i.e., generates data for HEC2). None
- H. Stage of documentation. Complete
- I. Brief description of program capabilities. Computes tables and plots of water levels, discharge, and inlet velocities

- A. Name, Organization, Telephone.

 Preston C. Pierce

 Coastal Engineering Research Center
 325-7410
- B. Name of program.
 HPVST
- C. Computer used to execute program. CDC 6600
- D. Program number. 720X6R1AXA
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. Modified version of CalComp
- F. Graphics equipment needed to support applications.

 Benson Lehner 305 or CalComp equivalent.
- G. Relationship to other programs (i.e., generates data for HEC2).

 None
- H. Stage of documentation.
 Complete
- I. Brief description of program capabilities. Plots significant wave height and peak spectral period data vs time

- A. Name, Organization, Telephone.

 Preston C. Pierce

 Coastal Engineering Research Center
 325-7410
- B. Name of program.
 SPECT
- C. Computer used to execute program. CDC 6600
- D. Program number. 720X6R13A0
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. Modified version of CalComp
- F. Graphics equipment needed to support applications.

 Benson Lehner 305 or CalComp equivalent
- G. Relationship to other programs (i.e., generates data for HEC2). 1 source of input generated from program WAVES (720X6R127B)
- H. Stage of documentation.
 Preliminary
- I. Brief description of program capabilities.
 - 1. Computes longshore energy flux factors
 - 2. Plots fraction of wave energy vs frequency

- A. Name, Organization, Telephone.

 Preston C. Pierce

 Coastal Engineering Research Center
 325-7410
- B. Name of program.

 SCATTER Scatter plot of significant wave heights and periods
- C. Computer used to execute program.
 CDC 6600
- D. Program number. 704X6R1BL0
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. Modified version of CalComp
- F. Graphics equipment needed to support applications.

 Benson Lehner 305 or CalComp equivalent
- G. Relationship to other programs (i.e., generates data for HEC2).

 None
- H. Stage of documentation.

 Near completion
- I. Brief description of program capabilities.

 Computes statistical parameters and generates scatter plot for significant wave height and period data from 2 sources

- A. Name, Organization, Telephone.
 Preston C. Pierce
 Coastal Engineering Research Center
 325-7410
- B. Name of program.
 XPDIR
- C. Computer used to execute program.
 CDC 6600
- D. Program number. 720X6R12L0
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. Modified version of CalComp
- F. Graphics equipment needed to support applications.

 Benson Lehner 305 or CalComp equivalent
- G. Relationship to other programs (i.e., generates data for HEC2).
 None
- H. Stage of documentation. Preliminary
- I. Brief description of program capabilities.
 Plots high resolution energy spectra of waves

- A. Name, Organization, Telephone.

 Preston C. Pierce
 Coastal Engineering Research Center
 325-7410
- B. Name of program.

 DTSA Digital Time Series Analysis
- C. Computer used to execute program.
- D. Program number. 704X6R18M0
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. Modified version of CalComp
- F. Graphics equipment needed to support applications.

 Benson Lehner 305 or CalComp equivalent
- G. Relationship to other programs (i.e., generates data for HEC2).
 None
- H. Stage of documentation. Preliminary
- I. Brief description of program capabilities.

 Performs time series analysis of water current meter data

- A. Name, Organization, Telephone.

 Preston C. Pierce
 Coastal Engineering Research Center
 325-7410
- B. Name of program. WINDRO - Plot of Wind Rose
- C. Computer used to execute program. CDC 6600
- D. Program number. 720X6R1980
- E. Programming language used.
 (1) Applications. FORTRAN
 - (2) Graphics. Modified version of CalComp
- F. Graphics equipment needed to support applications.

 Benson Lehner 305 or CalComp equivalent
- G. Relationship to other programs (i.e., generates data for HEC2). None
- H. Stage of documentation. Complete
- I. Brief description of program capabilities.

 Plots wind rose based on Littoral Environmental Observation data

- A. Name, Organization, Telephone.
 Preston C. Pierce
 Coastal Engineering Research Center
 325-7410
- B. Name of program. WAVEHR - Plot of Wave Height Rose
- C. Computer used to execute program. CDC 6600
- D. Program number. 720X6R1970
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. Modified version of CalComp
- F. Graphics equipment needed to support applications.

 Benson Lehner 305 or CalComp equivalent
- G. Relationship to other programs (i.e., generates data for HEC2). None
- H. Stage of documentation. Incomplete
- I. Brief description of program capabilities.

 Calculates percentages of wave heights for compass directions and plots a wave height rose based on Littoral Environmental Observation data

- A. Name, Organization, Telephone.
 Preston C. Pierce
 Coastal Engineering Research Center
 325-7410
- B. Name of program. WAVEPR - Plot of Wave Period Rose
- C. Computer used to execute program.

 CDC 6600
- D. Program number. 720X6R1330
- E. Programming language used.
 (1) Applications. FORTRAN
 - (2) Graphics. Modified version of CalComp
- F. Graphics equipment needed to support applications.

 Benson Lehner 305 or CalComp equivalent
- G. Relationship to other programs (i.e., generates data for HEC2).

 None
- H. Stage of documentation. Incomplete
- I. Brief description of program capabilities.

 Calculates percentages of wave periods from compass directions and plots a wave period rose based on Littoral Environemental Observation data

- A. Name, Organization, Telephone.

 Preston C. Pierce

 Coastal Engineering Research Center
 325-7410
- B. Name of program. SURPRO
- C. Computer used to execute program. CDC 6600
- D. Program number. 733X6R11T0
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. Modified version of CalComp
- F. Graphics equipment needed to support applications.

 Benson Lehner 305 or equivalent
- G. Relationship to other programs (i.e., generates data for HEC2).
 None
- H. Stage of documentation. Complete
- I. Brief description of program capabilities. Plots beach survey profiles

- A. Name, Organization, Telephone.
 Preston C. Pierce
 Coastal Engineering Research Center
 325-7410
- B. Name of program. SURVY1
- C. Computer used to execute program. CDC 6600
- D. Program number. 733X6R1BJC
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. Modified version of CalComp
- F. Graphics equipment needed to support applications.

 Benson Lehner 305 or CalComp equivalent
- G. Relationship to other programs (i.e., generates data for HEC2).

 None
- H. Stage of documentation. Complete
- I. Brief description of program capabilities. Computes tables and plots of surveyed profile data, mean contour positions, and contour migrations

- A. Name, Organization, Telephone.
 Preston C. Pierce
 Coastal Engineering Research Center
 325-7410
- B. Name of program. SURVY2
- C. Computer used to execute program.
- D. Program number. 733X6R1BJD
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. Modified version of CalComp
- F. Graphics equipment needed to support applications.

 Benson Lehner 305 or CalComp equivalent
- G. Relationship to other programs (i.e., generates data for HEC2).
 None
- H. Stage of documentation. Complete '
- I. Brief description of program capabilities. Computes tables and plots of profiles, contour positions, and contour position migrations

- A. Name, Organization, Telephone.
 Preston C. Pierce
 Coastal Engineering Research Center
 325-7410
- B. Name of program.
 BEACH
- C. Computer used to execute program.
- D. Program number. 733X6RlBJE
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. Modified version of CalComp
- F. Graphics equipment needed to support applications.

 Benson Lehner 305 or CalComp equivalent
- G. Relationship to other programs (i.e., generates data for HEC2). None
- H. Stage of documentation. Sample I/O, computational procedures, design specifications, and flow chart program not written
- I. Brief description of program capabilities. Computes tables and plots of beach changes through shoreline position migration and unit volume changes

- A. Name, Organization, Telephone. Preston C. Pierce Coastal Engineering Research Center 325-7410
- B. Name of program. VOLCTR
- C. Computer used to execute program. CDC 6600
- D. Program number. 733X6R1BJF
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. Modified version of CalComp
- F. Graphics equipment needed to support applications. Benson Lehner 305 or CalComp equivalent
- G. Relationship to other programs (i.e., generates data for HEC2). None
- H. Stage of documentation. Same as BEACH; program under development
- I. Brief description of program capabilities. Computes tables and plots of volume changes at a profile line at each contour from one survey to the next

- A. Name, Organization, Telephone.
 Preston C. Pierce
 Coastal Engineering Research Center
 325-7410
- B. Name of program.
 MEANS
- C. Computer used to execute program.
 CDC 6600
- D. Program number. 733X6R1BJG
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. Modified version of CalComp
- F. Graphics equipment needed to support applications.

 Benson Lehner 305 or CalComp equivalent
- G. Relationship to other programs (i.e., generates data for HEC2).
 None
- H. Stage of documentation.

 Same as BEACH; program not written
- I. Brief description of program capabilities. Computes tables and plots of mean unit volume and mean shoreline positions

- A. Name, Organization, Telephone.
 Preston C. Pierce
 Coastal Engineering Research Center
 325-7410
- B. Name of program. ELVDIS
- C. Computer used to execute program. CDC 6600
- D. Program number. 733X6R1BJH
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. Modified version of CalComp
- F. Graphics equipment needed to support applications.

 Benson Lehner 305 or CalComp equivalent
- G. Relationship to other programs (i.e., generates data for HEC2). None
- H. Stage of documentation.

 Same as BEACH; program not written
- I. Brief description of program capabilities.

 Computes tables and plots depicting elevation (max, min, and changes) at specific distances on a profile line

HYDROLOGIC ENGINEERING CENTER PROGRAMS

- A. Name, Organization, Telephone. Hydrologic Engineering Center
- B. Name of program.
 HEC1
 HEC2
- C. Computer used to execute program.

 LBL

 BCS
- D. Program number.
- E. Programming language used.
 - (1) Applications.
 - (2) Graphics.
- F. Graphics equipment needed to support applications.
 Line printer
 Tektronix
 CalComp
- G. Relationship to other programs (i.e., generates data for HEC2).

 Simple output display on line printer

 Pre- and post-graphical display (input data/results)
- H. Stage of documentation.
- I. Brief description of program capabilities.

 HEC1 | standard line printer graphics

 HEC2 | Additional capability is under development for graphically previewing input data to HEC2 as well as displaying output results on Tektonrix and CalComp devices

LOWER MISSISSIPPI VALLEY DIVISION PROGRAMS

- A. Name, Organization, Telephone.
 Lower Mississippi Valley Division
 River and Reservoir Control Center
 6761
- B. Name of program.
 Zeus
- C. Computer used to execute program. INFONET
- D. Program number.
 None
- E. Programming language used. Not known
 - (1) Applications.
 - (2) Graphics.
- F. Graphics equipment needed to support applications.
 Tektronix and Hardcopier
- G. Relationship to other programs (i.e., generates data for HEC2). None
- H. Stage of documentation. Incomplete
- I. Brief description of program capabilities.
 - 1. Provides for up to 4-degree polynomial curve-fitting of stage discharge data
 - 2. Generates rating table from computed coefficients
 - 3. Provides automated stage-to-stage routing
 - 4. Provides graphical data display
 - Provides a data file system which provides the data base for the various routines used

A. Name, Organization, Telephone.
Brian Kleber/Gerald Willick
St. Louis District
LMSED-FI /LMSAC-S
268-2734 /268-5176

B. Name of program.

INSTRUMENTATION DATA PLOT SYSTEM (under development)

C. Computer used to execute program. GE635/TK4051

D. Program number.

E. Programming language used.

(1) Applications. FORTRAN/Basic

(2) Graphics. TK Software

F. Graphics equipment needed to support applications.

TK 4051 Graphic Calculator

TK 4662 Plotter

TK 4907 Flexible Disc

TK 4631 Hard Copy Unit

G. Relationship to other programs (i.e., generates data for HEC2). Survey input preprocessed by McAuto COGO

H. Stage of documentation.
Under development

I. Brief description of program capabilities.

The system will produce plot instrumentation data in accordance with the requirements of ER 1110-2-100 and DIVR 1110-1-310

A. Name, Organization, Telephone.
John J. Jobst
St. Louis District
LMSAC-S
314-268-5176 (FTS 278-5176)

B. Name of program.
FORAW - A graphics display program for the results from pile analysis programs

C. Computer used to execute program.

BCS
WES

D. Program number.
None yet

MACON

E. Programming language used.

(1) Applications. FORTRAN/GCS

(2) Graphics.

F. Graphics equipment needed to support applications.
Tektronix 4014

G. Relationship to other programs (i.e., generates data for HEC2). Graphics display of output of various pile analysis programs: Rigid base pile analysis Pile optimization Appile (W/SLD post processor)

H. Stage of documentation. Preliminary in-house user notes

I. Brief description of program capabilities.

Display pile geometry, various load factors and forces associated with each pile by load case, and worst case for each pile

A. Name, Organization, Telephone.
John J. Jobst
St. Louis District
LMSAC-S
314-268-5176 (FTS 278-5176)

B. Name of program.
PILEGEN - An interactive graphics program for the generation and display of pile geometry data

C. Computer used to execute program.

BCS

WES

MACON

D. Program number.
None yet

E. Programming language used.

(1) Applications. FORTRAN/GCS

(2) Graphics.

- F. Graphics equipment needed to support applications.
 Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2).

 Generate data for rigid base B pile analysis programs
- H. Stage of documentation. Preliminary in-house user notes
- I. Brief description of program capabilities.

 Can create or update data files for these programs. Can display current file at any time. Can generate single pile, rectangular zones of pile circular arcs of pile. Can delete single or groups of pile. Will be able to rotate zones or entire layout. Can display zone currently being generated. Can list zone currently being generated or current file

- A. Name, Organization, Telephone.
 Freddie Rush
 Vicksburg District
 636-1311, Ext 485
- B. Name of program. LIGHT - used to calculate and plot area lighting levels
- C. Computer used to execute program. WES G-635
- D. Program number.
- Frogramming language used.Applications. FORTRAN
 - (2) Graphics. GCS
- F. Graphics equipment needed to support applications. Tektronix 4014 and 4631
- G. Relationship to other programs (i.e., generates data for HEC2).
 Uses DAFILE and HIWHYN vs data files. Writes or prints
- H. Stage of documentation. Fair
- I. Brief description of program capabilities.

 LIGHT is used as a design aid for outdoor lighting. Given data describing the fixture patterns, their mounting heights, and locations, the program generates a contour plot of the area lighting levels

MISSOURI RIVER DIVISION PROGRAMS

bearings constructed to the

ourself audit of a little

- A. Name, Organization, Telephone.
 Bill Saint
 Missouri River Division
 FTS 864-7243
- B. Name of program.

 General Plot
- C. Computer used to execute program. GE 437 Omaha, NE CDC 7600 Berkeley, CA
- D. Program number.
- E. Programming language used.
 - (1) Applications. FORTRAN IV
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications. CalComp
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation. Input formats
- I. Brief description of program capabilities.

Two-dimensional plot			
Grid Size	X and/or Y	Symbol Sizing	
Grid Scaling	X and/or Y	Axis Scaling	Yes or No
Grid Reduction-exp.	X and/or Y	Special Notes	Yes or No
Grid Plot	Yes or No	3 Pen Positions	1 and/or 2 and/or 3
Legend	Yes or No	2 X-Y Card Formats	Omaha and HEC2
Header	Yes or No	1 X-Y Tape Format 8 Line Codes 92 Symbol Codes	

- A. Name, Organization, Telephone. Archie Gatrost, Design Branch Kansas City District FTS 758-3235
- B. Name of program. SUPERB
- C. Computer used to execute program. UNI 1108
- D. Program number.
- E. Programming language used.
 - Applications.
 Graphics.
- F. Graphics equipment needed to support applications. Tektronix
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation. 100%
- I. Brief description of program capabilities. The program has the capability to generate input data interactively, edit data, generate Tektronix geometry plots, and display geometry plots.

NORTH ATLANTIC DIVISION PROGRAMS

- A. Name, Organization, Telephone.
 Ralph Moses/Wesley Fager
 Norfolk District
 804-446-3621
- B. Name of program.

 Passive Plot of Backwater Cross-Sections Including Bridges
- C. Computer used to execute program. CDC 7600
- D. Program number. 722X8E4030
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications.
 CalComp 1039 Drum Plotter with 921 Controller
- G. Relationship to other programs (i.e., generates data for HEC2).
 Uses standard HEC2 input deck
- H. Stage of documentation. Documentation complete
- I. Brief description of program capabilities. Program reads standard backwater deck and generates plots from data off X1, GR, and BT cards

- A. Name, Organization, Telephone.
 Richard Landin/Wesley Fager
 Norfolk District
 804-446-3523
- B. Name of program.

 A Computer Program for Contouring the Output of Finite Element Programs (Passive)
- C. Computer used to execute program. CDC 7600
- D. Program number. 704X8E4-236
- E. Programming language used.
 (1) Applications. FORTRAN extended
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications.
 CalComp 1039 Drum Plotter with 921 Controller
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation.

 Documentation complete
- I. Brief description of program capabilities. This is a WES-developed program. It is used to generate contours from data using the finite element method

- A. Name, Organization, Telephone.
 Richard Landin
 Norfolk District
 804-446-3524
- B. Name of program.

 Design Activity Military Bar Chart Plot (Passive)
- C. Computer used to execute program. GE 400
- D. Program number. 604F5E402H
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications.
 CalComp 1039 Drum Plotter with 921 Controller
- G. Relationship to other programs (i.e., generates data for HEC2). Extracts data from the Design Activity Military Program data base
- H. Stage of documentation. Documentation complete
- I. Brief description of program capabilities.

 Using dates extracted from the Design Activity Military program,
 a bar chart is generated showing the progress schedule of the
 various stages of each project

- A. Name, Organization, Telephone.
 Carl B. Doughty
 Philadelphia District
 215-597-4790
- B. Name of program.
 RIVER BASIN PLOT
- C. Computer used to execute program. CDC 7600
- D. Program number. F23-F9 E5040
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics.
- F. Graphics equipment needed to support applications.
 Autotrol Plotter
- G. Relationship to other programs (i.e., generates data for HEC2).

 Plots cross-sections of GR, BT data from HEC2 input data
- H. Stage of documentation. Write-up
- I. Brief description of program capabilities.

- A. Name, Organization, Telephone.
 Carl B. Doughty
 Philadelphia District
 215-597-4790
- B. Name of program.

 BACKWATER PROFILE PLOT
- C. Computer used to execute program. CDC 7600
- D. Program number. 723-F9-E5080
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics.
- F. Graphics equipment needed to support applications.
 Autotrol Plotter
- G. Relationship to other programs (i.e., generates data for HEC2).
 Uses output from HEC2
- H. Stage of documentation. Abstract
- Brief description of program capabilities.
 Up to 12 profiles, variable scales

- A. Name, Organization, Telephone.
 Carl B. Doughty
 Philadelphia District
 215-597-4790
- B. Name of program.

 HEC2 Sector Plot for Tektronix Graphics Terminal
- C. Computer used to execute program. UNIVAC 1108 (will be converted to Boeing)
- D. Program number. 723-F8-E5050
- E. Programming language used.
 (1) Applications. FORTRAN
 - (2) Graphics.
- F. Graphics equipment needed to support applications.
 Tektronics Graphics Terminal
- G. Relationship to other programs (i.e., generates data for HEC2).

 Plots GR and BT cross-sections for HEC2 input deck
- H. Stage of documentation. Write-up
- I. Brief description of program capabilities. Plots bridges and GR data superimposed; recursive windowing of screen display; optional scales and grid display

- A. Name, Organization, Telephone.
 Carl B. Doughty
 Phildelphia District
 215-597-4790
- B. Name of program.

 Monthly Reservoir Regulation-Report
- C. Computer used to execute program. CDC Cyber (Boeing)
- D. Program number. 724-F9-E5051
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics.
- F. Graphics equipment needed to support applications.
 Autotrol Plotter
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation. Write-up
- I. Brief description of program capabilities.

 Plots daily inflow, outflow, storage, and stage for reservoirs

- A. Name, Organization, Telephone.
 Carl Doughty
 Philadelphia District
 215-547-4790
- B. Name of program.
 AUTOTAPE RANGE/RANGE CHART PLOT
- C. Computer used to execute program.

 1108 (INFONET) (will be converted to Boeing)
- D. Program number. 733-F8-E5090
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics.
- F. Graphics equipment needed to support applications.

 Autotrol Plotter
- G. Relationship to other programs (i.e., generates data for HEC2).

 None
- H. Stage of documentation. Write-up
- I. Brief description of program capabilities.
 Plots range/range charts for use in navigation of dredges

NORTH CENTRAL DIVISION PROGRAMS

- A. Name, Organization, Telephone.
 Detroit District
 8-226-6448
- B. Name of program.
- C. Computer used to execute program.
 BCS
- D. Program number.
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics.
- F. Graphics equipment needed to support applications.
 AJ 832 or Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2).

 Generates quantities for dredging operations
- H. Stage of documentation.
- I. Brief description of program capabilities. Plots x-sections showing proposed channel configuration vs existing channel configuration for shipping channel (verifies data validity)

NORTH PACIFIC DIVISION PROGRAMS

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- A. Name, Organization, Telephone.
 Tony Stelmack
 Seattle District
 764-3696, FTS 399-3696
- B. Name of program.

 Drogue Track and Sounding Plot
- C. Computer used to execute program. IBM 370-155
- D. Program number. 803-K5-G323
- E. Programming language used.
 (1) Applications. FORTRAN
 - (2) Graphics. FORTRAN
- F. Graphics equipment needed to support applications.
 CalComp Plotter and 925 Controller
- G. Relationship to other programs (i.e., generates data for HEC2). None
- H. Stage of documentation. Finished
- I. Brief description of program capabilities. Plots chart of drogue tracks identifying drogues by line type and color and showing directions of movement, times observed, velocity, and depths. Draws chart with title block, scale, labeled reference points, and tide chart for period of observation

- A. Name, Organization, Telephone.
 Tony Stelmack
 Seattle District
 764-3696, FTS 399-3696
- B. Name of program.

 Photogrammetric Measurement of Movement Error Ellipse Plot
- C. Computer used to execute program.
 IBM 370-155
 HARRIS S120/4
- D. Program number. 733-K5-G318F 733-E1-G318G
- E. Programming language used.
 (1) Applications. FORTRAN
 - (2) Graphics. FORTRAN
- F. Graphics equipment needed to support applications.

 CalComp Plotter with 925 Controller

 or Gerber 4343 Plotter with Model 4300/4400 Controller
- G. Relationship to other programs (i.e., generates data for HEC2). Utilizes data generated by program 735-K5-G318E, Photogrammetric Measurement of Movement - Rigorous Method
- H. Stage of documentation.
 Complete
- I. Brief description of program capabilities.

 Utilizing the locations of points determined photogrammetrical
 (by Program 733-K5-G318E), this program calculates apparent
 displacement and error ellipse of displacement vector. Plots
 map overlay (or on the Gerber plotter directly on a print).

 Plot produced using user-set parameters for map size, orientation,
 and scale, and separate displacement scale.

- A. Name, Organization, Telephone.
 Jim Dahlen
 Seattle District
 FTS 399-3696
- B. Name of program.
 Profile Plot
- C. Computer used to execute program. IBM 370/155
- D. Program number. 803-K5-G308
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp, FORTRAN
- F. Graphics equipment needed to support applications. CalComp Plotter
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation. 100% Complete
- I. Brief description of program capabilities. Draws a profile grade plot

- A. Name, Organization, Telephone.

 Jim Dahlen
 Seattle District
 FTS 399-3696
- B. Name of program.

 Roadway Design System (RDS)
- C. Computer used to execute program.
 IBM 370/155
- D. Program number. 803-K5-G310
- E. Programming language used.
 - (1) Applications. FORTRAN, IBM 360 ASSEMBLER
 - (2) Graphics. CalComp, FORTRAN
- F. Graphics equipment needed to support applications.
 CalComp Plotter
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation. 100% Complete
- I. Brief description of program capabilities. Plots roadway x-sections, profile, horizontal alignment, roadway surface contours, and geometric data

- A. Name, Organization, Telephone.

 Jim Dahlen
 Seattle District
 FTS 399-3696
- B. Name of program.
 3D-GRAPHICS
- C. Computer used to execute program.

 IBM 370/155
- D. Program number. 803-K5-G320
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp, FORTRAN
- F. Graphics equipment needed to support applications.

 CalComp Plotter
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation. 100% Complete
- I. Brief description of program capabilities.

 Draws plan, front, side, x-section, isometric, diometric, stereopairs, and perspective plots and calculates surface area and volume of an enclosed 3-dimensional structure defined by points and planes

- A. Name, Organization, Telephone.
 Jim Dahlen
 Seattle District
 FTS 399-3696
- B. Name of program.
 HIGHWAY PERSPECTIVES
- C. Computer used to execute program.
 IBM 370/155
- D. Program number. 803-K5-G322
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp or Tektronix plot 10 FORTRAN
- F. Graphics equipment needed to support applications.

 CalComp Plotter or Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2).

 Roadway Design System (RDS) generates data for this program
- H. Stage of documentation. 100% complete as part of RDS
- I. Brief description of program capabilities.

 Draws perspective plots of highways

- A. Name, Organization, Telephone.
 Jim Dahlen
 Seattle District
 FTS 399-3696
- B. Name of program.
 X-SECTION PLOT
- C. Computer used to execute program.

 IBM 370/155
- D. Program number. 803-K5-G316
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp, FORTRAN
- F. Graphics equipment needed to support applications.

 CalComp Plotter
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation.
 Preliminary
- I. Brief description of program capabilities. Plots North Pacific Division cross-section cards, types, 0, 1, and 2

- A. Name, Organization, Telephone.
 Jim Dahlen
 Seattle District
 FTS 399-3696
- B. Name of program.

 COORDINATE POINT PLOT AND ANNOTATION
- C. Computer used to execute program.
 IBM 370/155
 HARRIS 120
- D. Program number. 803-K6-G309
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp, FORTRAN; Gerber CalComp compatibility, FORTRAN
- F. Graphics equipment needed to support applications.

 CalComp Plotter or Gerber Plotter
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation. 100% complete
- I. Brief description of program capabilities. Plots coordinates within rectangular boundary and labels each with descriptive information

- A. Name, Organization, Telephone.

 Jim Dahlen
 Seattle District
 FTS 399-3696
- B. Name of program.

 General purpose plot
- C. Computer used to execute program. IBM 370/155
- D. Program number. 803-K5-G310
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp, FORTRAN; Gerber CalComp compatibility, FORTRAN
- F. Graphics equipment needed to support applications.
 CalComp plotter
 Gerber plotter
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation. 90% complete
- I. Brief description of program capabilities.

 Allows the user to use all CalComp basic and functional software without the need to compile and link a program

- A. Name, Organization, Telephone.
 Jim Dahlen
 Seattle District
 FTS 399-3696
- B. Name of program.

 DAILY STREAMFLOW PLOT
- C. Computer used to execute program. IBM 370/155
- D. Program number. 803-K5-G303
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp, FORTRAN; Gerber CalComp compatibility, FORTRAN
- F. Graphics equipment needed to support applications.

 CalComp plotter or

 Gerber plotter
- G. Relationship to other programs (i.e., generates data for HEC2). Receives data from a preliminary program
- H. Stage of documentation. 100% complete
- I. Brief description of program capabilities. Draws discharge vs time

OFFICE, CHIEF OF ENGINEERS PROGRAMS

- A. Name, Organization, Telephone.
 Rod Wells
 Office, Chief of Engineers,
 MC Directorate
 Office of Plans and Studies
- B. Name of program.

 Principally using graphics programs developed for use on
 Tektronix 4051 mini all using IBM 370 at Univ. of Michigan
- C. Computer used to execute program. Tektronix 4051
- D. Program number.
- E. Programming language used.
 - (1) Applications. Basic
 - (2) Graphics. Basic
- F. Graphics equipment needed to support applications.

 Tektronix 4051 and Tektronix 4662 Digitzer/Plotter
- G. Relationship to other programs (i.e., generates data for HEC2). N/A
- H. Stage of documentation.
 Not required. Systems No
- I. Brief description of program capabilities.
 Multifunctional programs

OHIO RIVER DIVISION PROGRAMS

- A. Name, Organization, Telephone.
 Richard Beharry
 Ohio River Division
- B. Name of program. GCGP2 Contour Plotting, Reservoir Operation Plots Commodity Tunnage Traffic, Stage Forecasts
 Plot 10
- C. Computer used to execute program.
 CSC UNIVAC 1108
- D. Program number.
- E. Programming language used.(1) Applications. FORTRAN
 - (2) Graphics.
- F. Graphics equipment needed to support applications. CalComp 936, Tektronix CRT
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation. None
- I. Brief description of program capabilities.

 Plots monthly rainfall

 Plots yearly barge traffic by mile/commodity

- A. Name, Organization, Telephone.

 Nancy L. Wolf

 U. S. Army Engineer District, Louisville

 FTS 352-5650
- B. Name of program.

 Hydrographic Survey Data Plot
- C. Computer used to execute program.
 UNIVAC 1108
- D. Program number. 7338240P
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. Gerber PSP
- F. Graphics equipment needed to support applications.

 Gerber 4300 "super plotter"/4343 controller
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation.

 Program being tested
- I. Brief description of program capabilities. Plots shoal depth for survey readings - to be used as aid to dredging operation

- A. Name, Organization, Telephone. Nancy L. Wolf U. S. Army Engineer District, Louisville FTS 352-5650
- B. Name of program. Boring Log Plot
- C. Computer used to execute program. UNIVAC 1108
- D. Program number. 7418217P
- E. Programming language used.
 - Programming language used.
 (1) Applications. FORTRAN
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications. CalComp 663/760
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation.
- I. Brief description of program capabilities. Plots rock and soil explorations of borings and test pits vs depth

- A. Name, Organization, Telephone.

 Nancy L. Wolf

 U. S. Army Engineer District, Louisville
 FTS 352-5650
- B. Name of program.
 Relief Well Plot
- C. Computer used to execute program. IBM 360
- D. Program number. 741M214P
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications. CalComp 663/760
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation.
- I. Brief description of program capabilities. Plots gallons per minute, reservoir pool and tailwater elevations vs time (days)

- A. Name, Organization, Telephone.

 Nancy L. Wolf

 U. S. Army Engineer District, Louisville

 FTS 352-5650
- B. Name of program.

 Piezometer Plot
- C. Computer used to execute program. IBM 360
- D. Program number. 741M213P
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications. CalComp 663/760
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation.
- I. Brief description of program capabilities.

 Plots open or closed system piezometer readings for civil works projects. Pool and tailwater elevations are plotted vs time (days)

- A. Name, Organization, Telephone.
 Nancy L. Wolf
 U. S. Army Engineer District, Louisville
 FTS 352-5650
- B. Name of program.

 Monthly Reservoir Regulation Plot (Modification of Huntington District Program)
- C. Computer used to execute program. UNIVAC 1108
- D. Program number. 7248298P
- E. Programming language used.
 - Applications. FORTRAN
 Graphics. CalComp
- F. Graphics equipment needed to support applications. CalComp 663/760
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation.
- I. Brief description of program capabilities.

 Used to fulfill monthly reservoir regulation report requirement to Division Office. For each reservoir, plots (1) reservoir outflow and natural stream hydrograph, (2) pool elevation and corresponding storage volume, and (3) daily average basin rainfall vs time (days)

- A. Name, Organization, Telephone.
 Nancy L. Wolf
 U. S. Engineer District, Louisville
 FTS 352-5650
- B. Name of program.
 Cathodic Protection Record Plot
- C. Computer used to execute program. G 437
- D. Program number. 712H2O1P
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications. CalComp 663/760
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation. Incomplete
- I. Brief description of program capabilities.

 Plots amps, volts, and temperature vs time (days) and upper and lower pool elevations vs time (days)

- A. Name, Organization, Telephone. Richard Gowin U. S. Engineer District, Louisville FTS 352-5723
- B. Name of program. Pool Elevation Hydrograph with Rule Curve
- C. Computer used to execute program. G 225
- Program number. 7222213P
- E. Programming language used.
 (1) Applications. FORTRAN

 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications. CalComp 663/760
- G. Relationship to other programs (i.e., generates data for HEC2).
- Stage of documentation. Incomplete
- I. Brief description of program capabilities. Plots pool elevation vs time for 1 year per plot; each plot includes the sectional pool rule curve

- A. Name, Organization, Telephone.
 J. Robert Beck
 U. S. Army Engineer District, Louisville
 FTS 352-5635
- B. Name of program.

 Cross-Section Plot
- C. Computer used to execute program.
 G 437
- D. Program number. 732H215P
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications. CalComp 663/760 Controller
- G. Relationship to other programs (i.e., generates data for HEC2).
 Uses data from various earthwork quantities programs.
- H. Stage of documentation. Incomplete
- I. Brief description of program capabilities.

 Program plots cross sections consisting of original ground and a variable number of templates

- A. Name, Organization, Telephone.
 Will Forte
 Nashville District
 FTS 852-5631
- B. Name of program.

 Monthly Reservoir Operation Plot Program
- C. Computer used to execute program. UNIVAC 1108 CSC - INFONET
- D. Program number. 7248344P
- E. Programming language used.
 - Applications. FORTRAN
 Graphics. CalComp
- F. Graphics equipment needed to support applications. CalComp and Tektronix
- G. Relationship to other programs (i.e., generates data for HEC2). None
- H. Stage of documentation. Complete
- I. Brief description of program capabilities. Plots daily rainfall, elevation, storage, and discharge for each reservoir

- A. Name, Organization, Telephone.
 Wayne Abernathy
 Nashville District
 FTS 852-7138
- B. Name of program.

 Huntington District Earthwork Plot Program
- C. Computer used to execute program.
 UNIVAC 1108
 CSC INFONET
- D. Program number. 7328320P
- E. Programming language used.
 (1) Applications. FORTRAN
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications. CalComp
- G. Relationship to other programs (i.e., generates data for HEC2). None
- H. Stage of documentation. Complete
- I. Brief description of program capabilities.

 Plots earthwork cross sections and templates

- A. Name, Organization, Telephone.

 Jack Brown
 Nashville District
 FTS 852-5637
- B. Name of program. GPCP-II
- C. Computer used to execute program.

 UNIVAC 1108

 CSC INFONET
- D. Program number. GPCP-II
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications.

 CalComp and Tektronix
- G. Relationship to other programs (i.e., generates data for HEC2).

 None
- H. Stage of documentation. Complete
- I. Brief description of program capabilities.

 Used to plot reservoir profiles of temperature, dissolved oxygen, etc.

- A. Name, Organization, Telephone.
 Sam Bradley
 Nashville District
 FTS 852-7138
- B. Name of program.

 Preprocesser Plot Program for HEC2 Data
- C. Computer used to execute program.
 UNIVAC 1108
 CSC INFONET
- D. Program number. 7228324P
- E. Programming language used.
 (1) Applications. FORTRAN
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications.
 CalComp and Tektronix
- G. Relationship to other programs (i.e., generates data for HEC2). Displays for review HEC2 data
- H. Stage of documentation. Complete
- I. Brief description of program capabilities.

 Plots HEC2 data cross sections on CalComp or Tektronix in sequential or random order

- A. Name, Organization, Telephone.
 Sam Bradley
 Nashville District
 FTS 852-7138
- B. Name of program.

 Fathometer Streambed Elevation Computation Using Graphics Tablet
- C. Computer used to execute program.
 UNIVAC 1108
 CSC INFONET
- D. Program number. 73383070
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications. Tektronix
- G. Relationship to other programs (i.e., generates data for HEC2).

 None
- H. Stage of documentation. Complete
- I. Brief description of program capabilities. Digitizes fathometer readouts, displays on tektronix screen, and overlays dredging template if requested

- A. Name, Organization, Telephone.
 William H. Salesky
 Pittsburgh District
 FTS 722-6829
- B. Name of program.

 Plot of Daily Flow by Year
- C. Computer used to execute program. G-225
- D. Program number. 8032411P
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. FORTRAN
- F. Graphics equipment needed to support applications. CalComp 915/1036
- G. Relationship to other programs (i.e., generates data for HEC2).

 Input data can either be coded and punched or extracted from USGS tapes
- H. Stage of documentation.
 Program (no write-up)
- I. Brief description of program capabilities. Program produces a plot of flow vs time for each year's data that is input

- A. Name, Organization, Telephone.
 Lowell R. Hoy
 Pittsburgh District
 FTS 722-6971
- B. Name of program.

 CalComp GPCP-II
- C. Computer used to execute program.
 UNIVAC 1108
- D. Program number. 8038401P
- E. Programming language used.
 (1) Applications. FORTRAN
 - (2) Graphics. FORTRAN
- F. Graphics equipment needed to support applications. CalComp 915/1036
- G. Relationship to other programs (i.e., generates data for HEC2).

 Input data for lock-sounding plots are produced by program
 8032401D. Input data for water quality plots are extracted from
 the ORD labmaster file resident on INFONET
- H. Stage of documentation.
 Write-up (CalComp)
- I. Brief description of program capabilities.
 (See CalComp write-up)

- A. Name, Organization, Telephone.
 Robert W. Schmitt
 Pittsburgh District
 FTS 722-6951
- B. Name of program.

 Profile Plot for Channels
- C. Computer used to execute program. G-225
- D. Program number. 7222405P
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. FORTRAN
- F. Graphics equipment needed to support applications. CalComp 915/1036
- G. Relationship to other programs (i.e., generates data for HEC2).
 None
- H. Stage of documentation. Program and write-up
- I. Brief description of program capabilities. For single flow rate, program will plot thalweg profile, energy grade line, water surface profile, and velocities along the profile. For water surface and thalweg profile combination, program will handle up to 8 different flow rates. Options exist to plot an improved channel bottom profile, bridge locations, and appropriate notes

- A. Name, Organization, Telephone. Robert W. Schmitt Pittsburgh District FTS 722-6951
- B. Name of program. Cross-Section Plot from HEC2 Deck
- C. Computer used to execute program. G-225
- D. Program number. 7222401P
- E. Programming language used.
 - (1) Applications. FORTRAN
 (2) Graphics. FORTRAN
- F. Graphics equipment needed to support applications. CalComp 915/1036
- G. Relationship to other programs (i.e., generates data for HEC2). Processes data prepared as input to HEC2

CENTIFICATION CONTRA

- H. Stage of documentation. Program only (no write-up)
- I. Brief description of program capabilities. Program handles up to 190 ground points and 2 bridge points

SOUTH ATLANTIC DIVISION PROGRAMS

- A. Name, Organization, Telephone.
 Ferrell Ard
 South Atlantic Division
 FTS 242-6901
- B. Name of program. EZPERT
- C. Computer used to execute program.
 Honeywell Level 66/80
- D. Program number. EZPERT
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. PLOT-10
- F. Graphics equipment needed to support applications.
 Tektronix
- G. Relationship to other programs (i.e., generates data for HEC2). Plots data input from RA/PM
- H. Stage of documentation. Final
- I. Brief description of program capabilities. Draws bar charts, x-y charts, and CPM logic networks

- A. Name, Organization, Telephone.
 Warren R. Bennett, Jr.
 Charleston District
 677-4524
- B. Name of program.

 HEC2 X-Sects, and Profile Plots
- C. Computer used to execute program.
 Honeywell 66/80
- D. Program number. 723K221P
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications. CalComp 936/925
- G. Relationship to other programs (i.e., generates data for HEC2).
 Uses HEC2 data deck for generation of data for plotting of
 HEC2 profiles
- H. Stage of documentation.
 Incomplete; still under development, refinement
- I. Brief description of program capabilities.

 Cross section and profile plots used in conjunction with HEC2 runs

- A. Name, Organization, Telephone.
 Kline Bentley
 Jacksonville District
 FTS 946-2458
- B. Name of program.

 RWBD (Retrieve Water Budget Data Program)
- C. Computer used to execute program. PDP 11/70
- D. Program number. WM51A
- E. Programming language used.
 (1) Applications. FORTRAN
 - (2) Graphics. GPLOT
- F. Graphics equipment needed to support applications.
 Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2).

 Generates data file compatible with GSPLT and PWBD
- H. Stage of documentation. Not started
- I. Brief description of program capabilities.

 Retrieves data from Water Budget Data base and creates files suitable for plotting or printing

- A. Name, Organization, Telephone.
 Kline Bentley
 Jacksonville District
 FTS 946-2458
- B. Name of program.

 PWBD (Plot Water Budget Data)
- C. Computer used to execute program. PDP 11/70
- D. Program number. WM51B
- E. Programming language used.
 (1) Applications. FORTRAN
 - (2) Graphics. GPLOT
- F. Graphics equipment needed to support applications. Textronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2).

 Plots data from files generated by RWBD
- H. Stage of documentation.
 Not started
- I. Brief description of program capabilities. Produces plots of data in Water Budget Data base

- A. Name, Organization, Telephone.
 Kline Bentley
 Jacksonville District
 FTS 946-2458
- B. Name of program.

 GSPLT (Plot and Statistical Program for USGS Formatted Data)
- C. Computer used to execute program.
 PDP 1.1/70
- D. Program number. WM53
- E. Programming language used.
 (1) Applications. FORTRAN
 - (2) Graphics. GPLOT
- F. Graphics equipment needed to support applications.
 Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2).

 Plots data and computes statistics from files generated by
 USGSSEL and RWBD
- H. Stage of documentation. Finished
- I. Brief description of program capabilities.

 Generates plots, outputs peak yearly values, and produces frequency statistics of data in USGS 336 byte format

- A. Name, Organization, Telephone.
 Oscar B. Knappe
 Jacksonville District
 FTS 946-2462
- B. Name of program.

 Range Positioning System Data Plot
- C. Computer used to execute program. PDP 11/70
- D. Program number. KM53
- E. Programming language used.
 (1) Applications. FORTRAN IV
 - (2) Graphics. GPLOT
- F. Graphics equipment needed to support applications.
 Tektronix 4014, Gerber 4343
- G. Relationship to other programs (i.e., generates data for HEC2).

 This program is one of a system of ten programs which processes automated survey data
- H. Stage of documentation.
- I. Brief description of program capabilities.

 This program will plot sounding data in either plane view or cross-section view. Options provide for the insertion of channel limits, design turn plate, and station numbering. The program can combine data file into one multiple sheet plots with match lines. The sounding can be plotted at any angle. The 4014 allows full preview before hardcopy is generated

- A. Name, Organization, Telephone.
 Richard W. Bunnell
 Jacksonville District
 FTS 946-2207
- B. Name of program.

 Area-Capacity Curve from Digitized Data
- C. Computer used to execute program. PDP 11/70
- D. Program number. WH45
- E. Programming language used.
 (1) Applications. FORTRAN IV
 - (2) Graphics. GPLOT
- F. Graphics equipment needed to support applications.

 Tektronix 4014 graphics terminal and graphics tablet
- G. Relationship to other programs (i.e., generates data for HEC2). This program reads the data file built by the digitizing program WH46
- H. Stage of documentation.
 Preliminary user instructions written
- I. Brief description of program capabilities.

 This program computes areas and volumes from digitized data and it makes U. S. customary to metric or metric to U. S. customary conversions. Input-output options are selected by the user at the time of execution

- A. Name, Organization, Telephone.
 Richard W. Bunnell
 Jacksonville District
 FTS 946-2207
- B. Name of program. Cross-Section Digitizer
- C. Computer used to execute program. PDP 11/70
- D. Program number. WH57
- E. Programming language used.
 - (1) Applications. FORTRAN IV
 - (2) Graphics. GPLOT
- F. Graphics equipment needed to support applications.

 Tektronix 4014 graphics terminal with graphics tablet
- G. Relationship to other programs (i.e., generates data for HEC2). Generates data for HEC2
- H. Stage of documentation. Preliminary user instructions written
- I. Brief description of program capabilities.

 The program digitizes cross-section data and puts them in an HEC2 card image file. This file is then punched on cards. The end product is a data deck of "X1" and "GR" cards ready for HEC2 use

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- A. Name, Organization, Telephone.
 Richard W. Bunnell
 Jacksonville District
 FTS 946-2207
- B. Name of program.
 Contour Digitizer
- C. Computer used to execute program.
 PDP 11/70
- D. Program number. WH46
- E. Programming language used.
 - (1) Applications. FORTRAN IV
 - (2) Graphics. GPLOT
- F. Graphics equipment needed to support applications.

 Tektronix 4014 graphics terminal and graphics tablet
- G. Relationship to other programs (i.e., generates data for HEC2). Generates data for WH45 which computes areas and volumes from basic digitized data
- H. Stage of documentation.

 Preliminary user instructions written
- I. Brief description of program capabilities.
 - The program digitizes: 1. Contours from maps
 - 2. Cross sections of cuts
 - 3. Excavation cross sections
 - 4. Drainage areas...a data file is set up for WH45 to use in computing areas and volumes

- A. Name, Organization, Telephone.
 Tom Arnold
 Jacksonville District
 FTS 946-3680
- B. Name of program.
 None
- C. Computer used to execute program. PDP 11/70
- D. Program number. WY48
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. GPLOT
- F. Graphics equipment needed to support applications. Tektronix 4014 terminal
- G. Relationship to other programs (i.e., generates data for HEC2).

 Accepts 4 input files from another program and creates
 necessary graphs
- H. Stage of documentation. Incomplete
- I. Brief description of program capabilities.

 Converts duration-damage relationships to depth damage relationships for a given water surface elevation in a specific area.

 This program is developed for the Boggy Creek Expanded Flood Plain Information Study

- A. Name, Organization, Telephone. Tom Arnold Jacksonville District FTS 946-3680
- B. Name of program. WY37 - Statistical Curvilinear Regression
- C. Computer used to execute program. PDP 11/70
- D. Program number. WY37
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. GPLOT
- F. Graphics equipment needed to support applications. Tektronix 4014-1 terminal
- G. Relationship to other programs (i.e., generates data for HEC2).
 - 1. Generates data for WY42 Economic Damage Susceptibility
 - 2. Programs WY38, WY39, WY40 Service WY37
- Stage of documentation. Complete
- I. Brief description of program capabilities.
 - 1. General-purpose regression, normal and time series
 - 2. Price projections

 - 3. Average annual damage calculation 4. Damage relationship construction and plots
 - 5. Creates files for other programs

- A. Name, Organization, Telephone.
 Tom Arnold
 Jacksonville District
 FTS 946-3680
- B. Name of program.

 General Linear Plots
- C. Computer used to execute program. PDP 11/70
- D. Program number. WY46
- E. Programming language used.
 (1) Applications. FORTRAN
 (2) Graphics. GPLOT
- F. Graphics equipment needed to support applications. Tektronix 4014-1
- G. Relationship to other programs (i.e., generates data for HEC2).

 None, display only
- H. Stage of documentation. Incomplete
- I. Brief description of program capabilities.

 Creates plots using linear interpolation among points x and y axes labels. Title and the data are also provided

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ARMY ENGINEER WATERWAYS EXPERIMENT STATION VICKSBURG MISS F/G 9/2 GRAPHICS IN THE CORPS. PROCEEDINGS OF THE COMPUTER GRAPHICS COL--ETC(U) 1978 J M JONES, R L HALL, N RADMAKRISHNAN

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- A. Name, Organization, Telephone. Tom Arnold Jacksonville District FTS 946-3680
- B. Name of program. Historical Time Series Plot Routine
- C. Computer used to execute program. PDP 11/70
- D. Program number. WY41
- E. Programming language used.
 (1) Applications. FORTRAN
 (2) Craphics. GPLOT
- F. Graphics equipment needed to support applications. Tektronix 4014-1 terminal
- G. Relationship to other programs (i.e., generates data for HEC2). No direct linkage. Data entered for this program may be transformed to an input file for WY37 by using the service program WY38
- H. Stage of documentation. Complete
- I. Brief description of program capabilities. Plots historical data over periods of time entered interactively

- A. Name, Organization, Telephone.
 Kline Bentley
 Jacksonville District
 FTS 946-2458
- B. Name of program.

 Fit General Least Squares Polynomial Fitting Program
- C. Computer used to execute program. PDP 11/70
- D. Program number. WY55
- E. Programming language used.
 (1) Applications. FORTRAN
 (2) Graphics. GPLOT
- F. Graphics equipment needed to support applications. Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2). Fit generates polynomial coefficient for area capacity curves used in water budget programs
- H. Stage of documentation. Complete
- I. Brief description of program capabilities.

 Fit calculates coefficients of a polynomial curve fit to two-variable (x,y) data. The observations can be weighted. The following options are available y=x, $y=\ln x$, $\ln y=x$, $\ln y=\ln x$, and $y=\frac{1}{x}$

- A. Name, Organization, Telephone. Engineering Division Computer Center Mobile District 205-690-2425
- B. Name of program.

 - Hydrology
 Foundation and material
 - 3. EZPERT
- C. Computer used to execute program. UNIVAC 1108 USCSC MACON H66/80
- D. Program number. Local programs
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp and GCS
- F. Graphics equipment needed to support applications. CalComp 1036 Drum Tektronix 4014-1
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation.
- I. Brief description of program capabilities.

- A. Name, Organization, Telephone.

 RAPM

 Savannah District
- B. Name of program. EZPERT
- C. Computer used to execute program.
 H6066
- D. Program number. EZPERT-1
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. CalComp, Plot 10
- F. Graphics equipment needed to support applications.

 Drum Plotter

 Tektronix
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation.
 Purchased
- I. Brief description of program capabilities.

 Network plot program

- A. Name, Organization, Telephone.

 James Waller

 Wilmington District

 FTS 674-9577
- B. Name of program.
 Interactive HEC2 Cross Section Plot
- C. Computer used to execute program. HARRIS 120
- D. Program number. 722-E1-K702M
- E. Programming language used.
 - (1) Applications. FORTRAN IV
 - (2) Graphics. PLOT 10
- F. Graphics equipment needed to support applications.
 Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2). Uses input file for HEC2
- H. Stage of documentation. Limited
- I. Brief description of program capabilities.

 Displays HEC2 cross sections with optional windowing

- A. Name, Organization, Telephone. James Waller Wilmington District FTS 674-9577
- B. Name of program. Backwater Cross Section Plot
- C. Computer used to execute program. HARRIS 120
- D. Program number. 722-E1K702D
- (1) Applications. FORTRAN IV
 (2) Graphics. CalComp E. Programming language used.
- F. Graphics equipment needed to support applications. CalComp 925 Controller, 718 Flatbed
- Relationship to other programs (i.e., generates data for HEC2). Uses HEC2 input
- Stage of documentation. Limited
- I. Brief description of program capabilities. Plots cross section using different color or line widths for bridges. Selective plot only channel

- A. Name, Organization, Telephone.

 James Waller

 Wilmington District

 FTS 674-9577
- B. Name of program.

 Earthwork Cross Section Plot (CalComp)
- C. Computer used to execute program.
 HARRIS 120
- D. Program number. 732-E1-K702A
- E. Programming language used.
 - (1) Applications. FORTRAN IV
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications.
 CalComp 925 Controller, 718 Flatbed Plotter
- G. Relationship to other programs (i.e., generates data for HEC2).
 Uses data from earthwork program
- H. Stage of documentation. Completed
- I. Brief description of program capabilities.

 Plots template and ground line with different colors or line widths for template and ground line

- A. Name, Organization, Telephone.

 James Waller
 Wilmington District
 FTS 674-9577
- B. Name of program.

 RPS Cross Section Plot (CalComp)
- C. Computer used to execute program. HARRIS 120
- D. Program number. 733-E1-K711E
- E. Programming language used.
 (1) Applications. FORTRAN IV
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications.
 CalComp 925 Controller, 718 Flatbed Plotter
- G. Relationship to other programs (i.e., generates data for HEC2).

 One in a system of seven Hydrographic Survey System programs.

 Use file generated by other programs
- H. Stage of documentation. Complete
- I. Brief description of program capabilities. Displays before and after dredging sections using three pens at three different depths

- A. Name, Organization, Telephone.

 James Waller

 Wilmington District

 FTS 674-9577
- B. Name of program.

 Interactive RPS Cross Section Edit and Plot
- C. Computer used to execute program.
 HARRIS 120
- D. Program number. 733-El-K711U
- E. Programming language used.
 (1) Applications. FORTRAN IV
 - (2) Graphics. PLOT 10
- F. Graphics equipment needed to support applications.
 Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2).

 One in a system of seven Hydrographic Survey System programs
- H. Stage of documentation. Complete
- I. Brief description of program capabilities. Displays channel cross section option to delete points by using cross hairs

- A. Name, Organization, Telephone.

 James Waller

 Wilmington District

 FTS 674-9577
- B. Name of program.

 RPS Map Plot
- C. Computer used to execute program. HARRIS 120
- D. Program number. 733-E1-K711C
- E. Programming language used.
 - (1) Applications. FORTRAN IV
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications. CalComp 925, 718 Plotter System
- G. Relationship to other programs (i.e., generates data for HEC2). Uses output from RPS processing program
- H. Stage of documentation. Complete
- I. Brief description of program capabilities. Plots river depths on predrawn maps

- A. Name, Organization, Telephone.

 James Waller

 Wilmington District

 FTS 674-9577
- B. Name of program.

 Monthly Reservoir Regulation Chart
 Plot (CalComp)
- C. Computer used to execute program. HARRIS 120
- D. Program number. 723-E1-K7150
- E. Programming language used.
 (1) Applications. FORTRAN IV
 (2) Graphics. CalComp

CalComp 925/718 Plotter System

- F. Graphics equipment needed to support applications.
- G. Relationship to other programs (i.e., generates data for HEC2). None
- H. Stage of documentation. Complete
- I. Brief description of program capabilities.
 Plots monthly Reservoir Regulation Charts for submission to SAD

- A. Name, Organization, Telephone.

 James Waller
 Wilmington District
 FTS 674-9577
- B. Name of program.
 Wave Refraction Plot
- C. Computer used to execute program.
 HARRIS 120
- D. Program number. 752-E1-K702A
- E. Programming language used.
 - (1) Applications. FORTRAN IV
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications. CalComp 925/718 Plotter System
- G. Relationship to other programs (i.e., generates data for HEC2). One in a series of 10 wave refraction analysis programs
- H. Stage of documentation.
 Limited
- I. Brief description of program capabilities.
 Plots calculated wave rays striking shoreline

SOUTH PACIFIC DIVISION PROGRAMS

- A. Name, Organization, Telephone.
 Clyde Okazaki
 South Pacific Division
 (415) 556-0620
- B. Name of program.
 - 1. Hydrographic Survey System
 - 2. Salinity System
 - 3. HEC2 Plot
- C. Computer used to execute program. HTS G-437
- D. Program number.
 - 1. 731-L3-080
 - 2. 720-L3-050
 - 3. 723-L3-02P
- E. Programming language used.
 - (1) Applications. FORTRAN IV
 - (2) Graphics. CalComp
- F. Graphics equipment needed to support applications. CalComp 663, 638, 760 (tape unit)
- G. Relationship to other programs (i.e., generates data for HEC2).
 - 1. and 2. None
 - 3. Graphical display of HEC2 input data
- H. Stage of documentation.
 - 1, 2, and 3 Users' guides available
- I. Brief description of program capabilities.
 - 1. Plots soundings from hydrographic survey
 - Displays salinity test data from the model in various fashions
 - Plots the cross-sectional and profile data and flags a number of key items (e.g., left and right bank elevation, encroachment stas., etc.)

- A. Name, Organization, Telephone.
 Bob Haavisto
 Sacramento District
 FTS 448-3188
- B. Name of program.

 N/A (see "I" below)

 Several special applications are under development. Those currently in use are described below
- C. Computer used to execute program. Textronix 4051
- D. Program number.
- E. Programming language used.
 - (1) Applications. 4051 Basic (2) Graphics.
- F. Graphics equipment needed to support applications.

 Tektronix 4662 Plotter/Digitizer is optional
- G. Relationship to other programs (i.e., generates data for HEC2).

 One program prepares some data for ROADS, which are run on

 NPD system
- H. Stage of documentation.
 None/Plot 50
- I. Brief description of program capabilities.
 - 1. Displays terrain and embankment cross sections
 - 2. Computes quantities in a zoned embankment
 - 3. Computes and displays traverse data for road alignment
 - 4. Plots x-y data pairs or y=F(x)
 - Computes and displays readings from instrumentation embedded in dam embankment
 - 6. General plot 50 mathematics routines (curve fitting, etc.)

SOUTHWESTERN DIVISION PROGRAMS

- A. Name, Organization, Telephone.
 Flood Plain Management Branch
 Fort Worth District
 334-3207
- B. Name of program.
 FP (TTS Version)
- C. Computer used to execute program.
 Honeywell 6000
- D. Program number.
 None
- E. Programming language used.
 (1) Applications. FORTRAN
 - (2) Graphics. FORTRAN (GCS)
- F. Graphics equipment needed to support applications. Tektronix 4014, 4662 Plotter
- G. Relationship to other programs (i.e., generates data for HEC2).

 Graphic display of HEC2 input and output
- H. Stage of documentation. None
- I. Brief description of program capabilities.

 The program plots the input (cross sections) and output (water surface profiles) of the HEC2 backwater program on a Tektronix 4014 CRT and a Tektronix 4662 plotter

- A. Name, Organization, Telephone.
 Fort Worth District
- B. Name of program.
 BPLOTCG (Batch Version)
- C. Computer used to execute program.
 Honeywell 6000
- D. Program number.
 None
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. FORTRAN (CalComp)
- F. Graphics equipment needed to support applications.

 Calcomp Drum Plotter
- G. Relationship to other programs (i.e., generates data for HEC2).
 Plots results from program GRAVT2
- H. Stage of documentation.
 None
- I. Brief description of program capabilities.

 This program is used to plot the subbasins, center of area, stream, and two different LCA (Length of Center of Area) calculations

- A. Name, Organization, Telephone.
 Fort Worth District
- B. Name of program.
 PLOTCG (TTS version of BPLOTCG)
- C. Computer used to execute program.

 Honeywell 6000
- D. Program number.
 None
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. FORTRAN (GCS)
- F. Graphics equipment needed to support applications.
 Tektronix 4014, 4662 plotter
- G. Relationship to other programs (i.e., generates data for HEC2).

 Plots results or output from program GRAVTZ
- H. Stage of documentation.
 None
- I. Brief description of program capabilities.

 This program is used to plot the subbasins, center of area, stream, and two different LCA (Length to Center of Area) calculations

- A. Name, Organization, Telephone.
 Fort Worth District
- B. Name of program.

 FT WORTH (Batch Version)
- C. Computer used to execute program.

 Honeywell 6000
- D. Program number.
 None
- E. Programming language used.
 (1) Applications. FORTRAN
 - (2) Graphics. FORTRAN (CalComp)
- F. Graphics equipment needed to support applications.

 CalComp Drum Plotter 936

 Comptroller 921
- G. Relationship to other programs (i.e., generates data for HEC2). Fancy profile plot of HEC2 generated output
- H. Stage of documentation.
 None
- I. Brief description of program capabilities.

 The program plots the water surface profiles from HEC2 output and has the capability for labeling

- A. Name, Organization, Telephone. Fort Worth District
- B. Name of program. GCS FTW (TTS Version of Fort Worth)
- C. Computer used to execute program. Honeywell 6000
- D. Program number. None
- E. Programming language used.

 - (1) Applications. FORTRAN
 (2) Graphics. FORTRAN (GCS)
- F. Graphics equipment needed to support applications. Tektronix 4014, 4662 plotter
- G. Relationship to other programs (i.e., generates data for HEC2). Profile plot of HEC2 generated output
- H. Stage of documentation. None
- I. Brief description of program capabilities. The program plots the water surface profiles from HEC2 output and has the capability for labeling

- A. Name, Organization, Telephone.
 Don G. Bratton
 Little Rock District
 FTS 740-5609
- B. Name of program.
 River Cross Sections
 Water Surface Profile
 Pool Elevations
- C. Computer used to execute program. G-225
- D. Program number. 803M4360 803M4370 803M4470
- E. Programming language used.
 - (1) Applications. GE-225 FORTRAN Software
 - (2) Graphics. CalComp Drum Plot Software
- F. Graphics equipment needed to support applications.
 CalComp 563 Drum Plotter
- G. Relationship to other programs (i.e., generates data for HEC2). 803-360 plots hydraulic elements of cross sections 803-370 plots backwater elevations
- H. Stage of documentation. Completed
- I. Brief description of program capabilities. 803-370 overplots 3 surveys (range type)

WATERWAYS EXPERIMENT STATION PROGRAMS

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- A. Name, Organization, Telephone.
 Ricky Austin, Harry Brown
 Waterways Experiment Station
 2145 2185
- B. Name of program.

 PPCALC
- C. Computer used to execute program.
 WES 600
 CARDIN
- D. Program number.
- E. Programming language used.
 - (1) Applications. CARDIN (FORTRAN)
 - (2) Graphics. Drum Plotter
- F. Graphics equipment needed to support applications.
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation.

 Program productive but not documented for release
- Brief description of program capabilities.
 Plots pavement deflections vs aircraft coverage

- A. Name, Organization, Telephone. Anthony Bombich Waterways Experiment Station
- B. Name of program.
 - 1. GPREFEM and 2. GPOSTFEM
 - 3. MULPLOT
- C. Computer used to execute program. WES 635
- D. Program number.
 - 1. and 2. WESLIB
 - 3. Not numbered (internal Soils Laboratory Program)
- E. Programming language used.
 - (1) Applications. FORTRAN and GCS
 - (2) Graphics.
- F. Graphics equipment needed to support applications. Tektronix 4014 and 4631
- G. Relationship to other programs (i.e., generates data for HEC2).
 - 1. Input to FEM programs
 - 2. Not related
 - 3. Not related
- H. Stage of documentation.
 - 1. and 2. WES ADP
 - 3. Minimal by WES Soils Laboratory
- I. Brief description of program capabilities.
 - 1. and 2. Generate FEM grid and plot results
 - 3. Plots multiple dashed line curves/x-y plot

- A. Name, Organization, Telephone.

 Martin T. Hebler

 Waterways Experiment Station
 2403
- B. Name of program. H0011
- C. Computer used to execute program. GE 635
- D. Program number.
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. WES GCS Package
- F. Graphics equipment needed to support applications. Tektronix 4012, 4014, CRT, Drum plotter
- G. Relationship to other programs (i.e., generates data for HEC2).

 Plots data stored by other Corps H programs
- H. Stage of documentation.
 Origin
- I. Brief description of program capabilities.
 Same as G.

- A. Name, Organization, Telephone. Fred Tracy John Shingler Waterways Experiment Station
- B. Name of program.
 - 1. Contour
 - 2. Data Plots
- C. Computer used to execute program.
 - 1. н635
 - 2. н635, т1980
- D. Program number.
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. FORTRAN, CalComp
- F. Graphics equipment needed to support applications.
 - 1. and 2. CalComp
 - 3. VERSATEC
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation. Completed
- I. Brief description of program capabilities.

 - Contouring of field-collected data
 Data vs time plots of data from model test

- A. Name, Organization, Telephone.
 Kent Turner
 Waterways Experiment Station
 601-636-3111, Ext 3746
- B. Name of program.

 Wave Data Reduction Program
- C. Computer used to execute program.

 Electronic Associates, Inc.
 Pacer 100
- D. Program number. N/A
- F. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. Versaplot
- F. Graphics equipment needed to support applications.

 Versatec printer/plotter
- G. Relationship to other programs (i.e., generates data for HEC2).

 N/A
- H. Stage of documentation. Unpublished miscellaneous paper
- I. Brief description of program capabilities.

 Preliminary reduction of hydraulic model wave data acquired by
 ADACS (Automated Data Acquisition and Control System)

- A. Name, Organization, Telephone.
 Larry Daggett
 Waterways Experiment Station
 2259
- B. Name of program. HEC2
- C. Computer used to execute program.
 G 635
 CYBER 176
- D. Program number.
- E. Programming language used.
 - (1) Applications.
 - (2) Graphics. GCS
- F. Graphics equipment needed to support applications.

 Tektronix HP or CalComp plotter
- G. Relationship to other programs (i.e., generates data for HEC2).

 Generates plots of x-section data for HEC formatted data

 Creates input data to other hydrodynamic models, such as SOCJM
- H. Stage of documentation.
- I. Brief description of program capabilities.

- A. Name, Organization, Telephone.

 James M. Jones II

 Waterways Experiment Station
 FTS 542-3533
- B. Name of program.
 Flood Histogram
- C. Computer used to execute program.

 Honeywell 600/6000 series
- D. Program number.
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. GCS
- F. Graphics equipment needed to support applications.

 Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation. Complete
- I. Brief description of program capabilities.

 Program accepts data of elevation values vs time and produces
 a histogram over a certain elevation interval

- A. Name, Organization, Telephone.

 James M. Jones II

 Waterways Experiment Station
 FTS 542-3533
- B. Name of program.
 Fish Species Barcharts
- C. Computer used to execute program.
 Honeywell 600/6000 series
- D. Program number.
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. GCS
- F. Graphics equipment needed to support applications.
 Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation. Complete
- I. Brief description of program capabilities. Produces bar charts (grouped) of several fish species for a certain time frame. A CalComp drum plot can be made of Tektronix Display at any time

- A. Name, Organization, Telephone. James M. Jones II Waterways Experiment Station FTS 542-3533
- B. Name of program. Dredge Disposal
- Computer used to execute program. Honeywell 600/6000
- D. Program number.
- E. Programming language used.
 - Programming language used.
 (1) Applications. FORTRAN
 - (2) Graphics. GCS
- Graphics equipment needed to support applications. Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2).
- Stage of documentation. Complete
- I. Brief description of program capabilities. Program produces 3-D plots of dredge disposal area and solves the hidden line problem

- A. Name, Organization, Telephone.

 James M. Jones II

 Waterways Experiment Station
 FTS 542-3533
- B. Name of program.
 Weapons Test
- C. Computer used to execute program.

 Honeywell 600/6000
- D. Program number.
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. GCS
- F. Graphics equipment needed to support applications.
 Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation. Complete
- I. Brief description of program capabilities. Program accepts data from different weapons tests and does a polynomial fit to data points

- A. Name, Organization, Telephone.

 James M. Jones II

 Waterways Experiment Station
 FTS 542-3533
- B. Name of program.
 GISB
- C. Computer used to execute program.

 Honeywell 600/6000 series
- D. Program number.
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. GCS
- F. Graphics equipment needed to support applications.
 Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2). Generates data for the incremental construction program ISBILD
- H. Stage of documentation. Complete
- I. Brief description of program capabilities. GISB generates finite element grids using tablet, cross hairs, or data file for the program ISBILD

- A. Name, Organization, Telephone.

 James M. Jones II

 Waterways Experiment Station
 FTS 542-3533
- B. Name of program.
 MOVIE
- C. Computer used to execute program.
 Honeywell 600/6000 series
- D. Program number. 803-F3-R0-202
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. GCS
- F. Graphics equipment needed to support applications. Tektronix 4012/4014
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation. Complete
- I. Brief description of program capabilities.

 MOVIE consists of four FORTRAN program modules (MOVIE, UTILITY, SECTION, TITLE) for the display and manipulation of data to produce two- and three-dimensional models as line drawings or continuous-tone color images

- A. Name, Organization, Telephone. Fred Tracy Waterways Experiment Station
- B. Name of program. 3-D geom.
- C. Computer used to execute program. G - 635
- D. Program number.
- E. Programming language used. (1) Applications. FORTRAN

 - (2) Graphics. GCS
- F. Graphics equipment needed to support applications. Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation. Incomplete
- I. Brief description of program capabilities. Generates 3-D geometry for input to 3-D stability program

- A. Name, Organization, Telephone.
 Fred Tracy
 Waterways Experiment Station
- B. Name of program.

 GPOSTFEM
- C. Computer used to execute program.
- D. Program number.
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. GCS
- F. Graphics equipment needed to support applications.

 Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2). Post-processor of FEM
- H. Stage of documentation.
 Complete
- I. Brief description of program capabilities.

- A. Name, Organization, Telephone. Fred Tracy Waterways Experiment Station
- Name of program. GPREFEM
- C. Computer used to execute program. G-635
- D. Program number.
- E. Programming language used.
 (1) Applications. FORTRAN

 - (2) Graphics. GCS
- F. Graphics equipment needed to support applications. Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2). Pre-processor of FEM analysis program
- H. Stage of documentation. Complete
- I. Brief description of program capabilities. Generates 2-D grids of FEM analysis

- A. Name, Organization, Telephone.
 Robert Hall
 Waterways Experiment Station
- B. Name of program.
 GCulvert
- C. Computer used to execute program.
 G-635
- D. Program number.
- E. Programming language used.
 (1) Applications. FORTRAN
 - (2) Graphics. GCS
- F. Graphics equipment needed to support applications.
 Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2).
 None
- H. Stage of documentation. Complete
- I. Brief description of program capabilities.

 Displays input and output for lock culvert analysis by moment distribution

- A. Name, Organization, Telephone.
 Robert Hall
 Waterways Experiment Station
- B. Name of program. GSLOPE
- C. Computer used to execute program. G-635
- D. Program number.
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. GCS
- F. Graphics equipment needed to support applications. Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2). None
- H. Stage of documentation.
- I. Brief description of program capabilities. Displays input and output data for slope stability analysis. The program includes both arc and wedge methods of analysis

- A. Name, Organization, Telephone.
 Robert Hall
 Waterways Experiment Station
 Automatic Data Processing Center
 FTS 542-3757
- B. Name of program. STRUPUT
- C. Computer used to execute program. G-635, G-6000
- D. Program number.
- E. Programming language used.
 - (1) Applications. FORTRAN
 - (2) Graphics. GCS
- F. Graphics equipment needed to support applications. Tektronix 4014
- G. Relationship to other programs (i.e., generates data for HEC2).
 None
- H. Stage of documentation. Complete
- I. Brief description of program capabilities. Generates data for planar rigid frame analysis; displays data for editing and review. Analyzes data and displays moment/ shear diagrams as well as deformed shape

- A. Name, Organization, Telephone.

 James M. Jones II

 Waterways Experiment Station
 FTS 542-3533
- B. Name of program. SOLIDS
- C. Computer used to execute program.
 Honeywell 600/6000 series
- D. Program number. 803-F3-R0-201
- E. Programming language used.
 (1) Applications. FORTRAN
 - (2) Graphics. GCS
- F. Graphics equipment needed to support applications. Tektronix 4012/4014
- G. Relationship to other programs (i.e., generates data for HEC2).
- H. Stage of documentation. Complete
- I. Brief description of program capabilities.
 - The SOLIDS system has the following capabilities:

 Model generation display editing and verific
 - Model generation, display, editing, and verification.
 The user may define 3-D bricks and prisms
 - b. Load and boundary condition generation and display

APPENDIX A - PROGRAMS LISTED BY APPLICATION AREA

NAME OFFICE PROGRAM NAME LANGUAGE DOCUMENTATION AREA MODE

FREDDIE RUSH LMK LIGHT GCS INCOMPLETE ELECTRIC I

A-2

NAME OFFICE PROGRAM NAME
LANGUAGE DOCUMENTATION AREA MODE

RICHARD LANDIN NAO DESIGN ACTIVITY MILITARY-BARCHART PLOT CALCOMP COMPLETE GENERAL P

WARD POWERS SAS EZPERT
PLOTIO COMPLETE GENERAL I

NORMAN R. SNYDER SAM FOUNDATION AND MATERIAL GCS NONE GENERAL I

NORMAN R. SNYDER SAM EZPERT GCS NONE GENERAL I

FERRELL ARD SAD EZPERT PLOTIO COMPLETE GENERAL I

ANTHONY BOMBICH WES GPREFEM GCS COMPLETE GENERAL I

ANTHONY BOMBICH WES GPOSTFEM GCS COMPLETE GENERAL I

ANTHONY BOMBICH WES MULPLOT GCS COMPLETE GENERAL I

JIM DAHLEN NPS X-SECTION PLOT CALCOMP INCOMPLETE GENERAL P

JIM DAHLEN NPS 3D-GRAPHICS CALCOMP COMPLETE GENERAL P

JIM DAHLEN NPS PROFILE PLOT CALCOMP COMPLETE GENERAL P

BILL SAINT MRO GENERAL PLOT CALCUMP INCOMPLETE GENERAL P

FRED TRACY WES CONTOUR CALCOMP COMPLETE GENERAL P

JOHN SHINGLER WES DATA PLOTS CALCOMP COMPLETE GENERAL P

NAME OFFICE PROGRAM NAME
LANGUAGE DOCUMENTATION AREA MODE

PRESTON C. PIERCE CERC THRED
PLOTIO COMPLETE GENERAL I

BRIAN KLEBER LMS INSTRUMENTATION DATA PLOT SYSTEM GCS INCOMPLETE GENERAL P

ARCHIE GATROST MRK SUPERB

CNICLES COMPTERS OF TREESTRY O

7034 3358084 SAH AFFAND AHERTON

WESLEY FAGER NAO PASSIVE PLOT OF BACKWATER CROSS SECTIONS CALCOMP COMPLETE HYDRAULICS P

WILLIAM LAWHEAD NCE X-SECTION PLOTS
GCS NONE HYDRAULICS I

NANCY L. WOLF ORL HYDROGRAPHIC SURVEY DATA PLOT GERBER INCOMPLETE HYDRAULICS P

NANCY L. WOLF ORL RELIEF WELL PLOT CALCOMP NONE HYDRAULICS P

NANCY L. WOLF ORL PIEZOMETER PLOT CALCOMP NONE HYDRAULICS P

NANCY L. WOLF ORL MONTHLY RESERVOIR REGULATION PLOT CALCOMP NONE HYDRAULICS P

NANCY L. WOLF ORL CATHODIC PROTECTION RECORD PLOT CALCOMP INCOMPLETE HYDRAULICS P

RICHARD GOWIN ORL POUL ELEVATION HYDROGRAPH WITH RULE CURVE CALCOMP INCOMPLETE HYDRAULICS P

WARREN R. BENNETT JRSAC HEC-2:x-SECTS AND PROFILE PLOTS CALCOMP INCOMPLETE HYDRAULICS P

WILL FORTE ORN MONTHLY RESERVOIR OPERATION PLOT PROGRAM PLOT10 COMPLETE HYDRAULICS I

JIM DAHLEN ORN DAILY STREAMFLOW PLOT CALCOMP COMPLETE HYDRAULICS P

JACK BROWN ORN GPCP-II PLOTIO COMPLETE HYDRAULICS I

SAM BRADLEY ORN PREPROCESSER PLOT PROGRAM FOR NEC-2 DATA
PLOTIO COMPLETE HYDRAULICS I

SAM BRADLEY ORN FATHOMETER STREAMBED ELEVATION COMPUTATION PLOTIO COMPLETE HYDRAULICS I

NORMAN R. SNYDER SAM HYDROLOGY
GCS NONE HYDRAULICS I

JAMES WALLER SAW INTERACTIVE HEC-2 CROSS SECTION PLOT PLOT10 INCOMPLETE HYDRAULICS I

JAMES WALLER SAW BACKWATER CROSS SECTION PLOT CALCOMP INCOMPLETE HYDRAULICS P

JAMES WALLER SAW RPS CROSS SECTION PLOT CALCOMP COMPLETE MYDRAULICS P

JAMES WALLER SAW INTERACTIVE RPS CROSS SECTION EDIT AND PLOT PLOT10 COMPLETE HYDRAULICS I

JAMES WALLER SAW RPS MAP PLOT CALCOMP COMPLETE HYDRAULICS P

JAMES WALLER SAM MONTHLY RESERVOIR REGULATION CHART PLOT CALCOMP COMPLETE HYDRAULICS P

JAMES WALLER SAM WAVE REFRACTION PLOT CALCOMP INCOMPLETE HYDRAULICS P

ART PABST HEC HEC-1 HEC-

GCS NONE HYDRAULICS I

ROBERT W. SCHMITT ORP PROFILE PLOT FOR CHANNELS CALCOMP COMPLETE HYDRAULICS P

LOWELL R. HOY ORP CALCOMP GPCPII
CALCOMP COMPLETE HYDRAULICS P

WILLIAM H. SALESKY ORP PLOT OF DAILY FLOW BY YEAR CALCOMP INCOMPLETE HYDRAULICS P

ROBERT W. SCHMITT ORP CROSS-SECTION PLOT FROM HEC-2 DECK
CALCOMP NONE HYDRAULICS P

GEORGE BRAGG LMY ZEUS
GCS INCOMPLETE HYDRAULICS I

DONALD R. WALKER SWF FP(TTS VERSION)
GCS NONE HYDRAULICS I

DONALD R. WALKER SWF BPLOTCG(BATCH VERSION)
CALCOMP NONE HYDRAULICS P

DONALD R. WALKER SWF PLOTCG(TTS VERSION OF BPLOTCG)
GCS NONE HYDRAULICS I

DONALD R. WALKER SWF FIWORTH CALCOMP NONE HYDRAULICS P

DUNALD R. WALKER SWF GCSFTW(TTS VERSION OF FTWORTH)
GCS NONE HYDRAULICS I

KLINE BENTLEY SAJ RWBD-RETRIEVE WATER BUDGET DATA GPLOT NONE HYDRAULICS I

KLINE BENTLEY SAJ PWBD-PLOT WATER BUDGET DATA GPLOT NONE MYDRAULICS I

OSCAR B. KNAPPE SAJ RANGE POSITIONING SYSTEM DATA PLOT GPLOT NONE HYDRAULICS I

RICHARD W. BUNNELL SAJ AREA-CAPACITY CURVE FROM DIGITIZED DATA GPLOT INCOMPLETE HYDRAULICS I

RICHARD W. BUNNELL SAJ CROSS-SECTION DIGITIZER GPLOT INCOMPLETE HYDRAULICS I

TOM ARNOLD SAJ WY48
GPLOT INCOMPLETE HYDRAULICS I

TOM ARNOLD SAJ STATISTICAL CURVILLINEAR REGRESSION SHOPLOT COMPLETE HYDRAULICS I

CARL B. DOUGHTY NAP RIVER BASIN PLOT CALCOMP COMPLETE HYDRAULICS P

CARL B. DOUGHTY NAP BACKWATER PROFILE PLOT CALCOMP INCOMPLETE HYDRAULICS P

CARL B. DOUGHTY NAP HEC-2 SECTOR PLOT FOR TEKTRONIX PLOTIO COMPLETE HYDRAULICS I

CARL B. DOUGHTY NAP MONTHLY RESERVOIR REGULATION REPORT CALCOMP COMPLETE HYDRAULICS P

CARL B. DOUGHTY NAP AUTOTAPE RANGE/RANGE CHART PLOT
CALCOMP COMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC SCATTER-SCATTER PLOT OF WAVE HTS & PERIODS CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC WAVEHR-PLOT OF WAVE HEIGHT ROSE
CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC MAVEPR-PLOT OF WAVE PERIOD ROSE CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC SURVY1
CALCOMP COMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC SURVYZ
CALCOMP COMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC BEACH CALCOMP NONE HYDRAULICS P

PRESTON C. PIERCE CERC VOLCTR
CALCOMP NONE HYDRAULICS P

PRESTON C. PIERCE CERC MEANS CALCOMP NONE HYDRAULICS P

PRESTON C. PIERCE CERC ELVDIS
CALCOMP NONE HYDRAULICS P

RICHARD L. BEHARRY ORD RESERVOIR OPERATION PLOTS
PLOTIO NONE HYDRAULICS I

RICHARD L. BEHARRY ORD COMMODITY TONNAGE TRAFFIC PLOTIO NONE HYDRAULICS P

RICHARD L. BEHARRY ORD STAGE FORECASTS
PLOTIO NONE HYDRAULICS I

PRESTON C. PIERCE CERC INLET-2
CALCOMP COMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC HPVST CALCOMP COMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC SPECT CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC XPDIR
CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC DIGITAL TIME SERIES ANALYSIS CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC WINDRO-PLOT OF WIND ROSE CALCOMP COMPLETE HYDRAULICS P

TONY STELMACK NPS DREDGE TRACK & SOUNDING PLOT CALCOMP COMPLETE HYDRAULICS P

MARTIN HEBLER WES HOOO1 GCS INCOMPLETE HYDRAULICS I

KENT TURNER WES WAYE: DATA REDUCTION PROGRAM VERSAPLOT INCOMPLETE HYDRAULICS P

LARRY DAGGETT WES NONE GCS NONE HYDRAULICS I

PRESTON C. PIERCE CERC OUTPUT CALCOMP INCOMPLETE HYDRAULICS P

CLYDE OKAZAKI SPO HYDROGRAPHIC SURVEY SYSTEM CALCOMP COMPLETE HYDRAULICS P

JIM DAMLEN NPS COURDINATE POINT PLOT AND ANNOTATION PLOT10 COMPLETE PAVEMENTS I

JIM DAHLEN NPS GENERAL PURPOSE PLOT CALCOMP COMPLETE PAVEMENTS P

JIM DAHLEN NPS COORDINATE POINT PLOT AND ANNOTATION PLOT10 COMPLETE PAVEMENTS I

JIM DAHLEN NPS GENERAL PURPOSE PLOT CALCOMP COMPLETE PAVEMENTS P

PERSON D. PIENCE DERC NUMBER 128 P

JIM DAHLEN NPS HIGHWAY PERSPECTIVES CALCOMP COMPLETE STRUCTURES P

RICKY AUSTIN WES PPCALC CALCOMP INCOMPLETE STRUCTURES P

JANET SPOONAMORE CERL SEARCH IG INCOMPLETE STRUCTURES I

JOHN J. JOBST LMS FORAM GCS INCOMPLETE STRUCTURES I

JOHN J. JOBST LMS PILEGEN GCS INCOMPLETE STRUCTURES I

APPENDIX B - PROGRAMS LISTED BY GRAPHICS LANGUAGE

WESLEY FAGER NAO PASSIVE PLOT OF BACKWATER CROSS SECTIONS CALCOMP COMPLETE HYDRAULICS P

WESLEY FAGER NAO FINITE ELEMENT PROGRAMS OUTPUT-CONTOURS CALCOMP COMPLETE SOILS P

RICHARD LANDIN NAO DESIGN ACTIVITY MILITARY-BARCHART PLOT CALCOMP COMPLETE GENERAL P

NANCY L. WOLF ORL BORING LOG PLOT CALCOMP NONE SOILS P

NANCY L. WOLF ORL RELIEF WELL PLOT CALCOMP NONE HYDRAULICS P

NANCY L. WOLF ORL PIEZOMETER PLOT CALCOMP NONE HYDRAULICS P

NANCY L. WOLF ORL MONTHLY RESERVOIR REGULATION PLOT CALCOMP NONE HYDRAULICS P

NANCY L. WOLF ORL CATHODIC PROTECTION RECORD PLOT CALCOMP INCOMPLETE HYDRAULICS P

RICHARD GOWIN ORL POOL ELEVATION HYDROGRAPH WITH RULE CURVE CALCOMP INCOMPLETE HYDRAULICS P

J. ROBERT BECK ORL CROSS SECTION PLOT CALCOMP INCOMPLETE SOILS P

WARREN R. BENNETT JRSAC HEC-2:X-SECTS AND PROFILE PLOTS
CALCOMP INCOMPLETE HYDRAULICS P

JIM DAHLEN ORN DAILY STREAMFLOW-PLOT CALCOMP COMPLETE HYDRAULICS P

WAYNE ABERNATHY ORN HUNTINGTON DISTRICT EARTHWORK PLOT PROGRAM CALCOMP COMPLETE SOILS P

JAMES WALLER SAW BACKWATER CROSS SECTION PLOT CALCOMP INCOMPLETE HYDRAULICS P

JAMES WALLER SAW EARTHWORK CROSS SECTION PLOT CALCOMP COMPLETE SOILS P

JAMES WALLER SAW RPS CROSS SECTION PLOT CALCOMP COMPLETE HYDRAULICS P

JAMES WALLER SAW RPS MAP PLOT CALCOMP COMPLETE HYDRAULICS P

JAMES WALLER SAW MONTHLY RESERVOIR REGULATION CHART PLOT CALCOMP COMPLETE HYDRAULICS P

JAMES WALLER SAW WAVE REFRACTION PLOT CALCOMP INCOMPLETE HYDRAULICS P

ROBERT W. SCHMITT ORP PROFILE PLOT FOR CHANNELS CALCOMP COMPLETE HYDRAULICS P

LOWELL R. HOY ORP CALCOMP GPCPII
CALCOMP COMPLETE HYDRAULICS P

WILLIAM H. SALESKY ORP PLOT OF DAILY FLOW BY YEAR CALCOMP INCOMPLETE HYDRAULICS P

DONALD R. WALKER SWF BPLOTCG(BATCH VERSION)
CALCOMP NONE HYDRAULICS P

DONALD R. WALKER SWF FTWORTH CALCOMP NONE HYDRAULICS P

CARL B. DOUGHTY NAP RIVER BASIN PLOT CALCOMP COMPLETE HYDRAULICS P

CARL B. DOUGHTY NAP BACKWATER PROFILE PLOT CALCOMP INCOMPLETE HYDRAULICS P

CARL B. DOUGHTY. NAP MONTHLY RESERVOIR REGULATION REPORT CALCOMP COMPLETE HYDRAULICS P

CARL B. DOUGHTY NAP AUTOTAPE RANGE/RANGE CHART PLOT

PRESTON C. PIERCE CERC SCATTER-SCATTER PLOT OF WAVE HTS & PERIODS CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC WAVEHR-PLOT OF WAVE HEIGHT ROSE CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC WAVEPR-PLOT OF WAVE PERIOD HUSE CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC SURPRO CALCOMP COMPLETERY DRAULICS P

PRESTON C. PIERCE CERC SURVY1
CALCOMP COMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC SURVYZ
CALCOMP COMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC BEACH CALCOMP NONE HYDRAULICS P

PRESTON C. PIERCE CERC VOLCTR
CALCOMP NONE HYDRAULICS P

PRESTON C. PIERCE CERC MEANS
CALCOMP NONE HYDRAULICS P

PRESTON C. PIERCE CERC ELVDIS
CALCOMP NONE HYDRAULICS P

PRESTON C. PIERCE CERC 1NLET=2

CALCOMP COMPLETE MYDRAULICS P

PRESTON C. PIERCE CERC HPVST CALCOMP COMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC SPECT CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC XPDIR
CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC DIGITAL TIME SERIES ANALYSIS CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC WINDRO-PLOT OF WIND ROSE CALCOMP COMPLETE HYDRAULICS P

JIM DAHLEN NPS GENERAL PURPOSE PLOT CALCOMP COMPLETE PAVEMENTS P

JIM DAHLEN NPS X-SECTION PLOT CALCOMP INCOMPLETE GENERAL P

JIM DAHLEN NPS 3D-GRAPHICS CALCOMP COMPLETE GENERAL P

JIM DAHLEN NPS HIGHWAY PERSPECTIVES CALCOMP COMPLETE STRUCTURES P

JIM DAHLEN NPS PROFILE PLOT CALCOMP COMPLETE GENERAL P

TONY STELMACK NPS DREDGE THACK & SOUNDING PLOT CALCOMP COMPLETE HYDRAULICS P

TONY STELMACK NPS PHOTOGRAMMETRIC MEASUREMENT OF MOVEMENT CALCOMP COMPLETE MATHEMATIC P

BILL SAINT MRO GENERAL PLOT CALCOMP INCOMPLETE GENERAL P

FRED TRACY WES CONTOUR CALCOMP COMPLETE GENERAL P

JOHN SHINGLER WES DATA PLOTS CALCOMP COMPLETE GENERAL P

RICKY AUSTIN WES PPCALC CALCOMP INCOMPLETE STRUCTURES P

PRESTON C. PIERCE CERC OUTPUT CALCOMP INCOMPLETE HYDRAULICS P

CLYDE OKAZAKI SPD HYDROGRAPHIC SURVEY SYSTEM CALCOMP COMPLETE HYDRAULICS P

CLYDE OKAZAKI SPD SALINITY SYSTEM
CALCOMP COMPLETE HYDRAULICS P

CLYDE OKAZAKI SPD HEC-2 PLOT CALCOMP COMPLETE HYDRAULICS P

DON G. BRATTON SWL RIVER CROSS SECTIONS
CALCOMP COMPLETE HYDRRAULIC

DON G. BRATTON SWL WATER SURFACE PROFILE CALCOMP COMPLETE HYDRAULICS P

DON G. BRATTON SWL POOL ELEVATIONS
CALCOMP COMPLETE HYDRAULICS P

WILLIAM LAWHEAD NCE X-SECTION PLOTS

CS NONE HYDRAULICS I

NORMAN R. SNYDER SAM HYDROLOGY GCS NONE HYDRAULICS I

NORMAN R. SNYDER SAM FOUNDATION AND MATERIAL

CS NONE GENERAL I

NORMAN R. SNYDER SAM EZPERT GCS NONE GENERAL I

ART PABST HEC HEC-1
GCS NONE HYDRAULICS I

ART PABST HEC HEC-2
GCS NONE HYDRAULICS I

ANTHONY BOMBICH WES GPREFEM
GCS COMPLETE GENERAL I

ANTHONY BOMBICH WES GPOSTFEM GCS COMPLETE GENERAL I

ANTHONY BOMBICH WES MULPLOT GCS COMPLETE GENERAL I

GEORGE BRAGG LMV ZEUS
GCS INCOMPLETE HYDRAULICS I

DONALD R. WALKER SWF FP(TTS VERSION)

GCS NONE HYDRAULICS I

DONALD R. WALKER SWF PLOTCG(TTS VERSION OF BPLOTCG)
GCS NONE HYDRAULICS I

DONALD R. WALKER SWF GCSFTW(TTS VERSION OF FTWORTH)
GCS NONE HYDRAULICS I

FREDDIE RUSH LMK LIGHT GCS INCOMPLETE ELECTRIC I

MARTIN HEBLER WES HOOO1
GCS INCOMPLETE HYDRAULICS I

LARRY DAGGETT WES NONE GCS NONE HYDRAULICS I

BRIAN KLEBER LMS INSTRUMENTATION DATA PLOT SYSTEM GCS INCOMPLETE GENERAL P

ARCHIE GATHOST MRK SUPERB GCS COMPLETE GENERAL I

BOB RENNER WES CURFIT GCS COMPLETE MATHEMATIC I

JERRY WILLICK LMS INSTRUMENTATION DATA REDUCTION SYSTEM GCS INCOMPLETE SOILS I

JOHN J. JOBST LMS FORAW
GCS INCOMPLETE STRUCTURES I

JOHN J. JOBST LMS PILEGEN
GCS INCOMPLETE STRUCTURES I

RICHARD L. BEHARRY ORD GCGP2 CONTOUR PLOTTING PLOTIO NONE SOILS P

RICHARD L. BEHARRY ORD RESERVOIR OPERATION PLOTS
PLOTIO NONE HYDRAULICS I

RICHARD L. BEHARRY ORD COMMODITY TONNAGE TRAFFIC PLOT10 NONE HYDRAULICS P

RICHARD L. BEHARRY ORD STAGE FORECASTS
PLOT10 NONE HYDRAULICS I

JIM DAHLEN NPS COORDINATE POINT PLOT AND ANNOTATION PLOT10 COMPLETE PAVEMENTS I

PRESTON C. PIERCE CERC THRED PLOTIO COMPLETE GENERAL I

APPENDIX C - PROGRAMS LISTED BY MODE

WILLIAM LAWHEAD NCE X-SECTION PLOTS
GCS NONE HYDRAULICS I

WARD POWERS SAS EZPERT PLOTIO COMPLETE GENERAL I

WILL FORTE ORN MONTHLY RESERVOIR OPERATION PLOT PROGRAM PLOTIO COMPLETE HYDRAULICS I

JACK BROWN ORN GPCP-II PLOT10 COMPLETE HYDRAULICS I

SAM BRADLEY ORN PREPROCESSER PLOT PROGRAM FOR HEC-2 DATA PLOT10 COMPLETE HYDRAULICS I

SAM BRADLEY ORN FATHOMETER STREAMBED ELEVATION COMPUTATION PLOTIO COMPLETE HYDRAULICS I

NORMAN R. SNYDER SAM HYDROLOGY GCS NONE HYDRAULICS I

NORMAN R. SNYDER SAM FOUNDATION AND MATERIAL GCS NONE GENERAL I

NORMAN R. SNYDER SAM EZPERT GCS NONE GENERAL I

JAMES WALLER SAW INTERACTIVE HEC-2 CROSS SECTION PLOT PLOT10 INCOMPLETE HYDRAULICS I

JAMES WALLER SAW INTERACTIVE RPS CROSS SECTION EDIT AND PLOT PLOTIO COMPLETE HYDRAULICS I

BOB MAAVISTO SPK ZONED EMBANKMENT PLOT10 NONE SOILS I

BOB HAAVISTO SPK TRAVERSE DATA FOR ROAD ALIGNMENTS PLOTIO NONE PAVEMENTS I

BOB HAAVISTO SPK X-Y DATA PLOTS PLOTIO NONE MATHEMATIC I

BOB HAAVISTO SPK DAM EMBANKMENT PLOT10 NONE SOILS I

BOB HAAVISTO SPK GENERAL PLOT 50 MATH ROUTINES

PLOTIO NONE MATHEMATIC I

ART PABST HEC HEC-1
GCS NONE HYDRAULICS I

ART PABST HEC HEC-2
GCS NONE HYDRAULICS I

FERRELL ARD SAD EZPERT PLOT.10 COMPLETE GENERAL I

ANTHONY BOMBICH WES GPREFEM GCS COMPLETE GENERAL I

ANTHONY BOMBICH WES GPOSTFEM
GCS COMPLETE GENERAL I

ANTHONY BOMBICH WES MULPLOT GCS COMPLETE GENERAL I

GEORGE BRAGG LMV ZEUS
GCS INCOMPLETE HYDRAULICS I

DONALD R. WALKER SWF FP(TIS VERSION)

GCS NONE HYDRAULICS I

DONALD R. WALKER SHF PLOTCG(TTS VERSION OF BPLOTCG)

GCS NONE HYDRAULICS I

DONALD R. WALKER SWF GCSFTW(TTS VERSION OF FTWORTH)

GCS NONE HYDRAULICS I

KLINE BENTLEY SAJ RWBD-RETRIEVE WATER BUDGET DATA

GPLOT NONE HYDRAULICS I

KLINE BENTLEY SAJ PHBD-PLOT WATER BUDGET DATA

GPLOT NONE HYDRAULICS I

KLINE BENTLEY SAJ GSPLT GPLOT COMPLETE STATISTICS I

OSCAR B. KNAPPE SAJ RANGE POSITIONING SYSTEM DATA PLOT

GPLOT NONE HYDRAULICS I

RICHARD W. BUNNELL SAJ AREA-CAPACITY CURVE FROM DIGITIZED DATA GPLOT INCOMPLETE HYDRAULICS I

RICHARD W. BUNNELL SAJ CROSS-SECTION DIGITIZER GPLOT INCOMPLETE HYDRAULICS I

TOM ARNOLD SAJ WY48
GPLOT INCOMPLETE HYDRAULICS I

TOM ARNOLD SAJ STATISTICAL CURVILLINEAR REGRESSION GPLOT COMPLETE HYDRAULICS I

TOM ARNOLD SAJ GENERAL LINEAR PLOTS
GPLOT INCOMPLETE MATHEMATIC I

TOM ARNOLD SAJ HISTORICAL TIME SERIES PLOT ROUTINE GPLOT COMPLETE MATHEMATIC I

KLINE BENTLEY SAJ GENERAL LEAST SQUARES POLYNOMIAL DISTRIBUTION GPLOT COMPLETE MATHEMATIC I

CARL B. DOUGHTY NAP HEC-2 SECTOR PLOT FOR TEXTRONIX PLOT10 COMPLETE HYDRAULICS I

RICHARD L. BEHARRY ORD RESERVOIR OPERATION PLOTS PLOTIO NONE HYDRAULICS I

RICHARD L. BEHARRY ORD STAGE FORECASTS
PLOT10 NONE HYDRAULICS I

JIM DAHLEN NPS COORDINATE POINT PLOT AND ANNOTATION PLOT10 COMPLETE PAVEMENTS I

FREDDIE RUSH LMK LIGHT
GCS INCOMPLETE ELECTRIC I

MARTIN HEBLER WES HOOGS
GCS INCOMPLETE HYDRAULICS I

LARRY DAGGETT WES NONE GCS NONE HYDRAULICS I

PRESTON C. PIERCE CERC THRED
PLOTIO COMPLETE GENERAL I

JANET SPOONAMORE CERL SEARCH
IG INCOMPLETE STRUCTURES I

ARCHIE GATROST MRK SUPERB GCS COMPLETE GENERAL I

BOB RENNER WES CURFIT
GCS COMPLETE MATHEMATIC I

JERRY WILLICK LMS INSTRUMENTATION DATA REDUCTION SYSTEM
GCS INCOMPLETE SOILS I

JOHN J. JOBST LMS FORAM
GCS INCOMPLETE STRUCTURES I

JOHN J. JOBST LMS PILEGEN
GCS INCOMPLETE STRUCTURES I

WESLEY FAGER NAO PASSIVE PLOT OF BACKWATER CRUSS SECTIONS CALCOMP COMPLETE HYDRAULICS P

WESLEY FAGER NAO FINITE ELEMENT PROGRAMS OUTPUT-CONTOURS CALCOMP COMPLETE SOILS P

RICHARD LANDIN NAO DESIGN ACTIVITY MILITARY-BARCHART PLOT CALCOMP COMPLETE GENERAL P

NANCY L. WOLF ORL HYDROGRAPHIC SURVEY DATA PLOT GERBER INCOMPLETE HYDRAULICS P

NANCY L. WOLF ORL BORING LOG PLOT CALCOMP NONE SOILS P

NANCY L. WOLF ORL RELIEF WELL PLOT CALCOMP NONE HYDRAULICS P

NANCY L. WOLF ORL PIEZOMETER PLOT CALCOMP NONE HYDRAULICS P

NANCY L. WOLF ORL MONTHLY RESERVOIR REGULATION PLOT CALCOMP NONE HYDRAULICS P

NANCY L. WOLF ORL CATHODIC PROTECTION RECORD PLOT CALCOMP INCOMPLETE HYDRAULICS P

RICHARD GOWIN ORL POOL ELEVATION HYDROGRAPH WITH RULE CURVE CALCOMP INCOMPLETE HYDRAULICS P

J. ROBERT BECK ORL CROSS SECTION PLOT CALCOMP INCOMPLETE SOILS

WARREN R. BENNETT JRSAC HEC-2: X-SECTS AND PROFILE PLOTS CALCUMP INCOMPLETE HYDRAULICS P

JIM DAHLEN ORN DAILY STREAMFLOW PLOT CALCOMP COMPLETE HYDRAULICS P

WAYNE ABERNATHY ORN HUNTINGTON DISTRICT EARTHWORK PLOT PROGRAM CALCOMP COMPLETE SOILS P

JAMES WALLER SAW BACKWATER CROSS SECTION PLOT CALCOMP INCOMPLETE HYDRAULICS P

JAMES WALLER SAW EARTHWORK CROSS SECTION PLOT CALCOMP COMPLETE SOILS P

JAMES WALLER SAW RPS CROSS SECTION PLOT CALCOMP COMPLETE HYDRAULICS P

JAMES WALLER SAW RPS MAP PLOT CALCOMP COMPLETE HYDRAULICS P

JAMES WALLER SAW MONTHLY RESERVOIR REGULATION CHART PLOT CALCOMP COMPLETE HYDRAULICS P

JAMES WALLER SAW WAVE REFRACTION PLOT CALCOMP INCOMPLETE HYDRAULICS P

ROBERT W. SCHMITT ORP PROFILE PLOT FOR CHANNELS CALCOMP COMPLETE HYDRAULICS P

LOWELL R. HOY ORP CALCOMP GPCPII
CALCOMP COMPLETE HYDRAULICS P

WILLIAM H. SALESKY ORP PLOT OF DAILY FLOW BY YEAR CALCOMP INCOMPLETE HYDRAULICS P

ROBERT W. SCHMITT ORP CROSS-SECTION PLOT FROM HEC-2 DECK CAKCINO NONE HYDRAULICS P

DONALD R. WALKER SWF BPLOTCG(BATCH VERSION)
CALCOMP NONE HYDRAULICS P

DONALD R. WALKER SWF FTWORTH
CALCOMP NONE HYDRAULICS P

CARL B. DOUGHTY NAP RIVER BASIN PLOT CALCOMP COMPLETE HYDRAULICS P

CARL B. DOUGHTY NAP BACKWATER PROFILE PLOT CALCOMP INCOMPLETE HYDRAULICS P

CARL B. DOUGHTY NAP MONTHLY RESERVOIR REGULATION REPORT CALCOMP COMPLETE HYDRAULICS P

CARL B. DOUGHTY NAP AUTOTAPE RANGE/RANGE CHART PLOT CALCOMP COMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC SCATTER-SCATTER PLOT OF WAVE HTS & PERIODS CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC WAVEHR-PLOT OF WAVE HEIGHT ROSE CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC WAVEPR-PLOT OF WAVE PERIOD ROSE CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC SURVY1
CALCOMP COMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC SURVY2
CALCOMP COMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC BEACH CALCOMP NONE HYDRAULICS P

PRESTON C. PIERCE CERC VOLCTR
CALCOMP NONE HYDRAULICS P

PRESTON C. PIERCE CERC MEANS CALCOMP NONE HYDRAULICS P

PRESTON C. PIERCE CERC ELVOIS
CALCOMP NONE HYDRAULICS P

RICHARD L. BEHARRY ORD GCGP2 CONTOUR PLOTTING
PLOT10 NONE SOILS P

RICHARD L. BEHARRY ORD COMMODITY TONNAGE TRAFFIC PLOTIO NONE HYDRAULICS P

PRESTON C. PIERCE CERC INLET-2
CALCOMP COMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC HPVST CALCOMP COMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC SPECT
CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC XPDIR
CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC DIGITAL TIME SERIES ANALYSIS CALCOMP INCOMPLETE HYDRAULICS P

PRESTON C. PIERCE CERC WINDRO-PLOT OF WIND ROSE CALCOMP COMPLETE HYDRAULICS P

JIM DAHLEN NPS GENERAL PURPOSE PLOT CALCOMP COMPLETE PAVEMENTS P

JIM DAHLEN NPS X-SECTION PLOT CALCOMP INCOMPLETE GENERAL P

JIM DAHLEN NPS 3D-GRAPHICS CALCOMP CUMPLETE GENERAL P

JIM DAHLEN NPS HIGHWAY PERSPECTIVES CALCOMP COMPLETE STRUCTURES P

JIM DAHLEN NPS PROFILE PLOT CALCOMP COMPLETE GENERAL P

TONY STELMACK NPS DREDGE TRACK & SOUNDING PLOT CALCOMP COMPLETE HYDRAULICS P

TONY STELMACK NPS PHOTOGRAMMETRIC MEASUREMENT OF MOVEMENT CALCOMP COMPLETE MATHEMATIC P

BILL SAINT MRO GENERAL PLOT CALCOMP INCOMPLETE GENERAL P

FRED TRACY WES CONTOUR CALCOMP COMPLETE GENERAL P

JOHN SHINGLER WES DATA PLOTS CALCOMP COMPLETE GENERAL P

KENT TURNER WES WAVE: DATA REDUCTION PROGRAM VERSAPLOT INCOMPLETE HYDRAULICS P

RICKY AUSTIN WES PPCALC CALCOMP INCOMPLETE STRUCTURES P

PRESTON C. PIERCE CERC OUTPUT CALCOMP INCOMPLETE HYDRAULICS P

CLYDE OKAZAKI SPD HYDROGRAPHIC SURVEY SYSTEM CALCOMP COMPLETE HYDRAULICS P

CLYDE OKAZAKI SPD SALINITY SYSTEM CALCOMP COMPLETE HYDRAULICS P

CLYDE OKAZAKI SPD HEC-2 PLUT CALCOMP COMPLETE HYDRAULICS P

DON G. BRATTON SWL WATER SURFACE PROFILE CALCOMP COMPLETE HYDRAULICS P

DON G. BRATTON SWL POOL ELEVATIONS CALCOMP COMPLETE HYDRAULICS P

BRIAN KLEBER LMS INSTRUMENTATION DATA PLOT SYSTEM GCS INCOMPLETE GENERAL P